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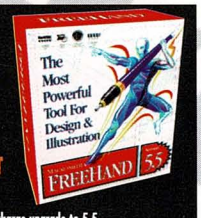

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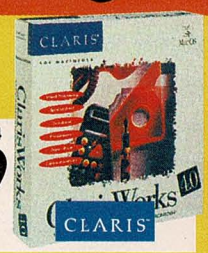

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MACFORMAT

ISSUE 39 ■ JULY 1996

The Finder

REVIEWS A-Z

Your guide to products reviewed in this issue:

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Adobe PhotoDeluxe – a new 'home' version of *Photoshop*. So how does it look?

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HOW TO...

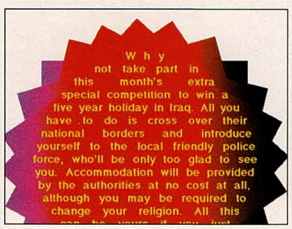
Use KPT 3's Spheroid Designer 70

Unleash the power of this amazing tool to create your own animations! Watch our movie on the Cover CD, read how we did it, then try it yourself with the CD demo version!

Master the options in AMT 72

We gave you *Apple Media Tool* on the MACFORMAT 36 Cover CD – now here's a full guide to the menus and the more advanced options in this powerful package.

Create text effects in ClarisWorks 74


Why not take part in this month's extra special competition to win a five year holiday in Iraq. All you have to do is cross over their national borders and introduce yourself to the local friendly police force, who'll be only too glad to see you. Accommodation will be provided by the authorities at no cost at all, although you may be required to change your religion. All this

After last issue's guide to mixing text and graphics, here's how to use both the Draw and Paint modules to create some stunning yet simple text effects.

WIN! WIN! WIN!

Plug in and surf free for a year! 138

Launch yourself into the Internet with a year's free Internet connection (worth over £155) and a top-rated 28.8K Motorola 3400 fax-modem (worth £175), courtesy of Demon Internet and Motorola. Three MACFORMAT readers will win both, and two runners-up a year's free Demon Internet account. There's no better way to get connected!

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Everything you wanted to know about MACFORMAT, plus a glimpse into our favourite things about the Internet...

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Apple's plans: a more flexible Operating System, Internet-ready Macs and new Net technologies, including Java. Plus: IBM joins up and gets behind the Mac OS.

What's New: product news 28

CorelDraw arrives on the Mac at last; exciting new Performas and monitors; cheaper network printers.

Apple Talk: letters 31

Mac memories, Silly Things Your Mac Says, anti-American bias and more of your weighty thoughts.

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Make sure you never miss an issue of MACFORMAT! Subscribe and you also receive some great software.

MacAnswers 77

Crack all those cryptic error codes as our troubleshooting experts solve all your problems, from hardware upgrades to backing up your files and checking the transfer rate of your modem.

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Top deals on quality selected Mac products.

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Why try and keep up with the computer hardware rat-race? A MACFORMAT reader explains why you should be happy with the Mac you've got.

Free Reader Ads 129

Missing a magazine? Desperate for a drive? Buy, sell or get it all here.

Buying Advice 132

Some sound advice before you part with your cash.

Classic System Crew 132

The adventurous mob journey into the unknown...

Next Issue 137

Goggle-eyed from staring at all the monitors we have to review, we'll be back in four weeks!

REVIEWS

Reviews begin 83
Our ratings and review policy.

Fax-modems 85
With all this talk of the Net, you'll have to get connected somehow. A modem will bridge the gap between your Mac and the world beyond. We test six of the best fax-modems to get you on-line.

Epson EPL-5500 92
Exceptional greyscales at an affordable price. We put Epson's new mono laser printer through its paces.

Extreme 3D 1.0 vs Ray Dream Studio 4.0 94
The brand-new 3D illustration package from Macromedia, head-to-head against the latest version of a 3D classic.

Adobe PhotoDeluxe 98
A new low-cost photo-manipulation program with a novel control interface, from the maker of the mighty *Photoshop*. We put you in the picture.

Learn to read with Mac & Muppets 96
Can the latest home education software help your kids at school? We test seven new titles in the light of the National Curriculum.

Children's Multimedia 107
Not strictly educational, but loads of fun – new CD-ROMs with the shorter Mac enthusiast in mind.
- Batman Cartoon Maker 107
- Dogz 110

Music: Cubase VST 112
It's a MIDI sequencer. It includes digital recording. Now it puts a complete studio inside your Mac!

Shareware delights 114

The latest shareware includes a life enhancing experience – a variety of databases to help you organise your every waking moment. Plus some other great stuff...

Game reviews 120

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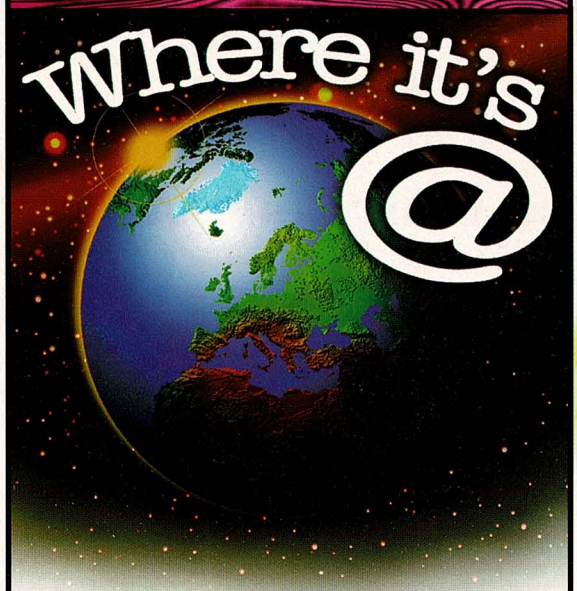

What's in it for you? Discover everything the Internet has to offer in our comprehensive guide to what's out there and how to get more from it!

What's in the Net and how to get there 38
The big picture, from e-mail to World Wide Web.

Browsing the Web 43
The heart of the Net, but which browser is best?

Chit-chat and free software 48
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Great Web pages created by MACFORMAT readers.

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Get Claris Emailer for half price! 58

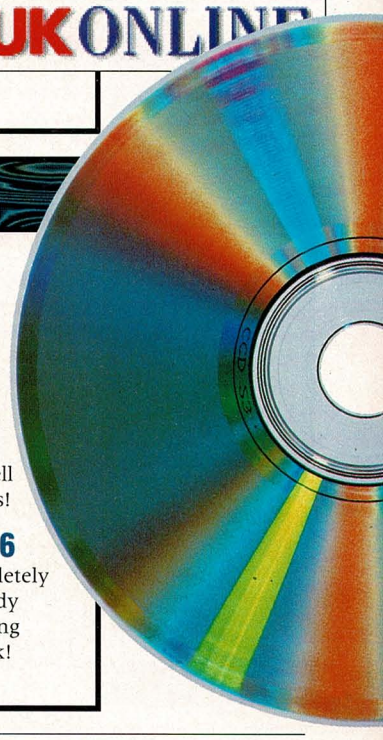
Which service provider? 61
To connect to the Internet, all you need is a Mac, a modem, a few bits of software... and an Internet service provider. We go undercover and test what the top providers offer – cost isn't everything!

YOUR COVER DISKS

MACFORMAT comes in a CD-ROM edition or high-density floppy disk edition every issue:

Your CD-ROMs 8
Over 1,220Mb of software, including demos of *Kai's Power Tools 3*, *Extreme 3D*, *FileMaker Pro 3*, *Claris Emailer* and *Flight Unlimited*, the **official UK** System 7.5.3 updater, the **full** version of *Internet Explorer 2*, *Shockwave*, as well as education demos and top extras from Claris!

Your Cover Disk 16
Over 3.2Mb of software, including two completely addictive games, *Skittles* and *Shards 1.3*, a handy Desktop diary, a calendar and truly time-saving utilities that will transform the way you work!



Welcome to MACFORMAT

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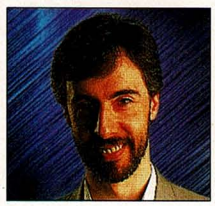
ABOUT OUR WRITERS



ALEX SUMMERSBY

Our Editor learned all he knows about Macs by using them, so he's still finding his feet in all this Net business. He's excited at the idea of free exchange of information and the resulting empowerment of the individual, but what he likes best about the Net is when he can get it to work.

RICHARD HILL

Our News Ed often trawls the Net for the latest news, but some of the best Web sites he's seen, he says, 'are made by just one or two people, rather than the huge teams you need to publish a magazine. The Net gives you the power to make your own distinctive voice heard.'

COLIN DALZIEL

Our Disc Ed says the best thing about the Net is all the great shareware you can download at the click of a button. And of course while he waits for that he has time for eating his favourite jelly trifle. The worst thing about the Net is the extra two stone he's put on since he started using it.

LINDSAY BRUCE

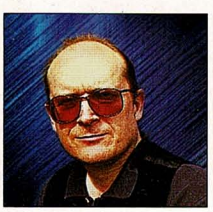
What our Technical Writer loves about the Net is 'the perfect balance of free software, techie information and pages on people's favourite kids' TV programs. It's a brilliant source of information on all aspects of life, art, and the universe. And there's lots of good Micro$oft jokes.'

DEREK SMITH

In this over-busy world, our Mac tech expert likes a new technology that slows things down, giving you time to relax as a Web page redraws and allowing you time to fully savour a freshly-brewed cup of tea – or indeed a whole pot – as you search for a simple bit of information.

ROD LAWTON

Our productivity specialist went undercover this month, in the best tradition of *Which* magazine, to assess Internet service providers. But he's thinking more of *Gardeners' World*, it seems: he says what he'd *like* to see in the Net is 'pruning, training and a good systemic pesticide.'



BRIAN LARKMAN

Our graphics expert has been testing two great new 3D packages this month, and he says he's looking forward to Apple's fabulous QuickDraw 3D technology becoming the standard on the Web. And he's also eager to see Macs shipped with enough RAM even to install it...

ABOUT MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Macintosh magazine. Every issue we bring you:

■ Tips, techniques and tutorials covering the range of Mac applications, from graphics, spreadsheets and databases to music, multimedia and games (and the Internet!).

■ Features about exciting Mac developments and novel uses, accompanied by Cover Disk programs whenever possible, so you can discover what your machine can do and try things you mightn't have tried before.

■ All the latest Mac-related news, plus all you want to know about the wider issues, the people behind the headlines and the stories behind the stories.

■ Authoritative reviews of interesting and affordable products, with clear buying recommendations.

■ Cover Disks and CD-ROMs with demos so you can try software before you buy, useful utilities (specially chosen to complement features in the magazine), selected shareware programs, games, readers' contributions and much more.

Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for.

■ MACFORMAT welcomes contributions for publication but we regret we cannot return them. Submissions are accepted on the basis of full assignment of copyright to Future Publishing Ltd, *unless* otherwise agreed in advance and in writing. We'll assume that all correspondence is for publication and all CD-ROM demos or readers' submissions may be incorporated on a Future Cover Disk/CD-ROM unless you expressly say otherwise in writing. See also p. 32

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■ We try to make ourselves available to answer Cover Disk related and general reader calls on Wednesday afternoons from 2pm to 6pm, so please try to ring then. We cannot answer technical queries over the phone – sorry! We hope you'll understand that because we receive so much correspondence we can't promise to reply to faxes, e-mail or mail personally, even if you include an SAE.

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We try to ensure that all prices quoted in editorial pages in MACFORMAT are accurate at the time of going to press, and they are all *inclusive* of UK Value Added Tax at 17.5%. However, this may not necessarily be the case with prices appearing in advertisements, so we recommend that you always contact advertisers before ordering to confirm prices and availability. See also page 132 for some helpful buying advice.

■ We make every effort to verify all the information we publish, but products and prices do change. We always quote list prices (RRPs), but street prices do vary. Shop around, and check with the supplier before buying to make sure that the product you're considering will meet your needs. MACFORMAT cannot accept responsibility for any errors or omissions or for any losses that may arise as a result, but it is our policy to correct any errors of fact whenever we possibly can.

ABOUT OUR REVIEWS

Every MACFORMAT review is designed to inform you in detail of what you'd be getting if you bought the product and help you decide whether it's worth your money. It tells you the essentials, without jargon.

MACFORMAT *does not review demos or unfinished programs.* We review only the finished products you could buy yourself, to help you decide whether to buy or not. We give clear buying recommendations, and rate products on this scale:

■ 80+% means excellent.
■ 70+% means well worthwhile, though not really outstanding.
■ 60+% means good, but with a few shortcomings or some limitations.
■ 50+% means acceptable but flawed.
■ A rating below 50% means you should think carefully before parting with your money.

The MACFORMAT Classic Award

If a product earns a rating of 90% or more, we'll give it a MACFORMAT Classic Award. This means what it says: we judge the product to be a classic, a standard-setter of its type, something really special.

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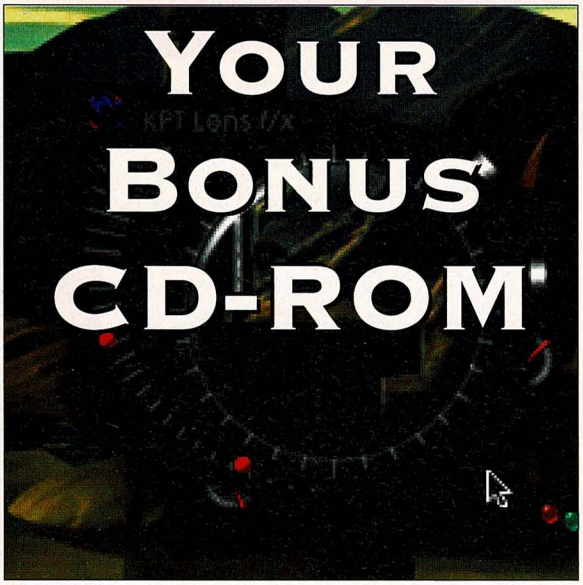


It's yet another of MACFORMAT's unbeatable double-CD spectaculars – over 1,200Mb of amazing software! Here's the run-down on the contents of your bonus graphics CD...

If anyone needed proof that the Mac is still *the* machine for computer graphics, here's all the evidence you could want – in stunning 3D and glorious colour!

- **Extreme 3D:** The amazing new 3D package from Macromedia. Read the review on page 94, then try this powerful 3D system for yourself!
- **xRes 2.0:** The MACFORMAT Classic-Award-winning, high-powered image editor, also from Macromedia.
- **Kai's Power Tools 3:** An exclusive taster of the dazzling graphic effects plug-ins from MetaTools. These demo versions enable you to preview effects but not 'apply' (ie, Save) them.
- **Ray Dream Gallery:** Three dozen fantastic images created with various versions of the other 3D suite reviewed this issue, *Ray Dream Studio*.
- **KPT Power Photos:** Sample images from the first two KPT clip photo collections.
- **New Zealand:** A professional interactive presentation from ABAS showing what multimedia can do.

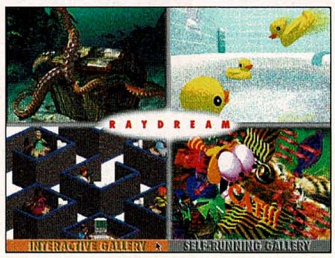
WHAT DO YOU THINK?

We are always open to ideas for our Cover CD and we want to know what you think. Should we include an interface to make it easier for you to navigate? What kinds of programs would you like to see? Do you want more games demos or are there already too many? How could we improve the disc? Let us know and your ideas may change the face of the MACFORMAT Cover CD. If you come up with an idea that we use, we'll make sure you get the credit you deserve (and of course some free software!)

Ray Dream Gallery

3D graphics gallery

Requires: see below



This gallery of 3D images displays what *Ray Dream Designer* can really achieve.

Ray Dream Gallery brings you a collection of stunning artwork created with *Ray Dream Studio*. You can view the images in the easy-to-use browser, and there's a collection of high-res TIFF images that you can open in your favourite paint package. If you want, just sit back and use the browser to enjoy a private display of some of the world's best 3D designs. And to see how *Ray Dream Studio* stands up next to Macromedia's mighty *Extreme 3D*, turn to our head-to-head review on page 94.

Note that these images are supplied only to demonstrate the capabilities of this software. They are all copyright and *may not be used in any way, printed or electronic*, without the express permission of the copyright holder.

Requires: LC or better, System 7.0 or later, 4 Mb free RAM

Over 40 images are included, and you can view them with this easy-to-use browser.

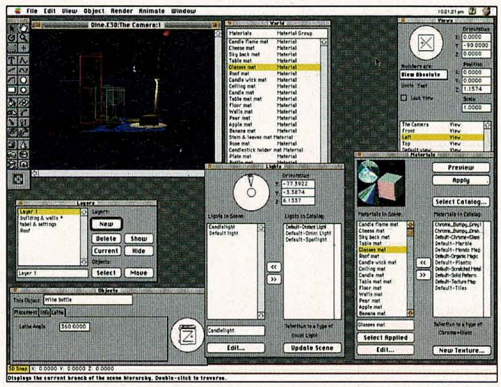
Extreme 3D

3D illustration package demo

Requires: see below

We are very excited to bring you this demo version of the stunning new 3D package from Macromedia, the company behind industry-standard art programs like *FreeHand* and *Director*. Its brand-new 3D program is awesomely powerful, with modelling capabilities that you have to try to believe. And that's just what you can do! You'll need a pretty powerful Mac to get it going – 3D work is very computation-intensive, so it won't run on any Mac without a hardware FPU (Floating Point Unit or maths co-processor), which means at least a Quadra – but this demo is fully-featured, only with Save and Export disabled. For more about *Extreme 3D*, see page 94.

Requires: Quadra or better (PowerMac recommended), 16Mb RAM, 14Mb free disk space for full installation, System 7.1 or later, colour monitor



The all-new 3D program from the company behind *FreeHand* and *Director* was bound to be something special, and it certainly is.

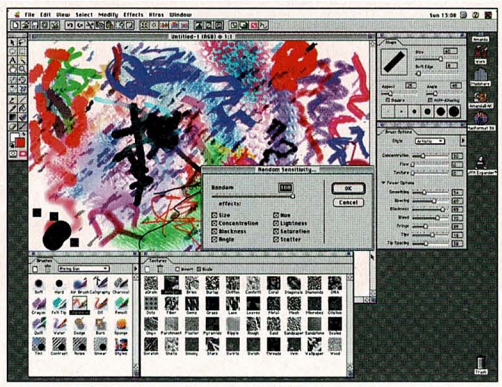
xRes 2.0

Image editing/retouching program demo

Requires: see below

Last issue we reviewed this high-powered image editor, also from the mighty Macromedia stable, and awarded it a MACFORMAT Classic Award. Try it for yourself and see why. It excels at handling images too huge for even *Photoshop*, and boasts features such as up to 20 levels of Undo, simple object-based compositing and plug-in compatibility. All features are enabled in this demo except those connected with saving out your work (such as Save, Export, Print, copy to FInder) and Batch Conversion.

Requires: Quadra or better (PowerMac recommended), 12Mb RAM, System 7 or later. 500Mb of free hard-drive swap space recommended.



Powerful bitmap image editing, comprehensive paint tools, up to 20 levels of Undo on local operations... *xRes* is a real heavyweight.

KPT Power Photos

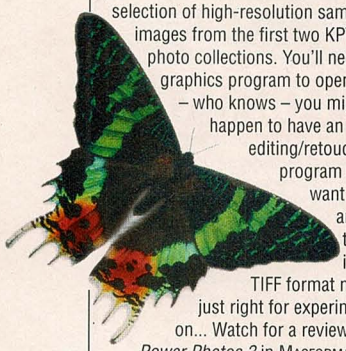
Sample 'clip photos'

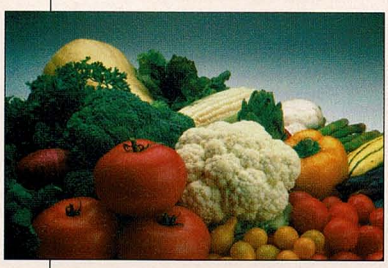
Requires: graphics program

Our sample images from the first two *KPT Power Photos* collections are TIFFs, so you can open them in many graphics programs.

The images are saved at resolutions of up to 3,072 x 2,048, which means they can be used at up to full A4 size.

With the third collection of *Power Photos* due soon from the *Kai's Power Tools* people (now known as MetaTools), here's a special selection of high-resolution sample images from the first two KPT clip photo collections. You'll need a graphics program to open them, but – who knows – you might just happen to have an image editing/retouching program demo you want to try out, and these top-quality images in TIFF format might be just right for experimenting on... Watch for a review of *KPT Power Photos 3* in MACFORMAT soon.





With digital photographs as stunning as these, the *Power Photos* collections are ideal for Mac-based DTP and design work.

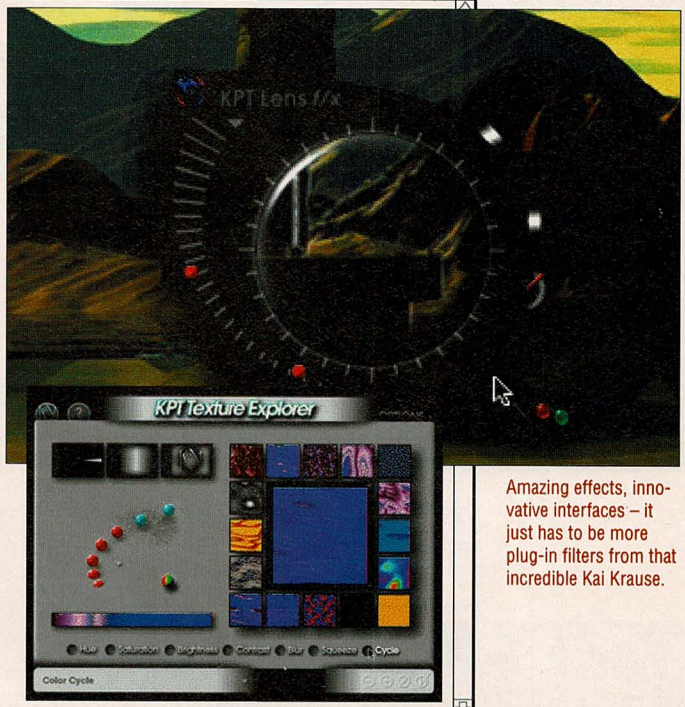
Kai's Power Tools 3

Demo graphics plug-ins

Requires: see below

In the world of graphics there is one name which is always linked with quality and innovation: Kai Krause. We are delighted to be able to bring you a taster of his new *KPT 3* plug-ins. This sample set of filters enables you to try out the effects of 18 different plug-ins. You are limited to previewing the filters and can't 'apply' the filters to your images (that is, save the images with the effects). You can use this demo with any Adobe-plug-in-compliant software, such as *Photoshop 3.0* (there's a demo on MACFORMAT 24's Cover CD), *xRes 2.0* (demo on this CD) or *Color It!* (full version on the MACFORMAT 31 CD). To create its incredible effects at speed, *KPT 3* requires powerful processing capabilities, so you must have a Mac with an FPU (a Quadra or better) or a PowerMac to use it.

Requires: Quadra or better, System 7.1 or later, plug-in-compliant graphics program, 2Mb RAM on top of what that program requires (16Mb total recommended minimum).



Amazing effects, innovative interfaces – it just has to be more plug-in filters from that incredible Kai Krause.

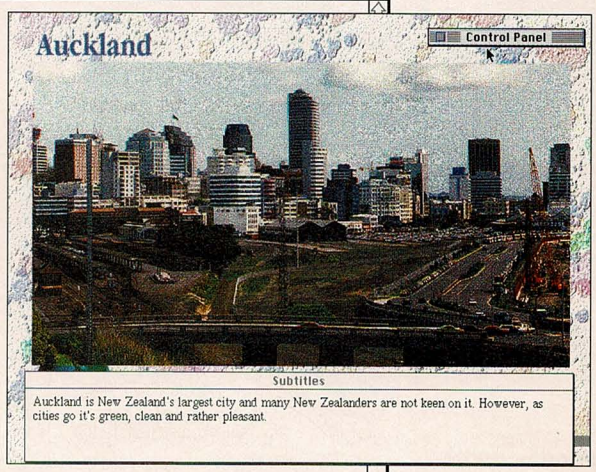
New Zealand tour

Multimedia presentation

Requires: LC or better, System 7.0 or later, 2Mb free RAM

In MACFORMAT 36 we gave you *Apple Media Tool*, Apple's own multimedia authoring package, *complete* except for the runtime maker, and since then we've been printing tutorials on how you can get the best out of this powerful software. But what better way of seeing what can be achieved with multimedia than a finished, professional presentation?

This grand multimedia tour around New Zealand shows off what can be done – it's full of skillful touches to inspire you. The feature-packed tour shows you around the land of many sheep with images, movies and sounds. You can follow the tour in a sequential way or, if you prefer, you can jump around the locations in any order. There is also a detailed section which explains what multimedia is all about, in a refreshingly clear and simple way, which might help you when you're planning out your own presentations. Or, of course, you could just sit back and enjoy it all!

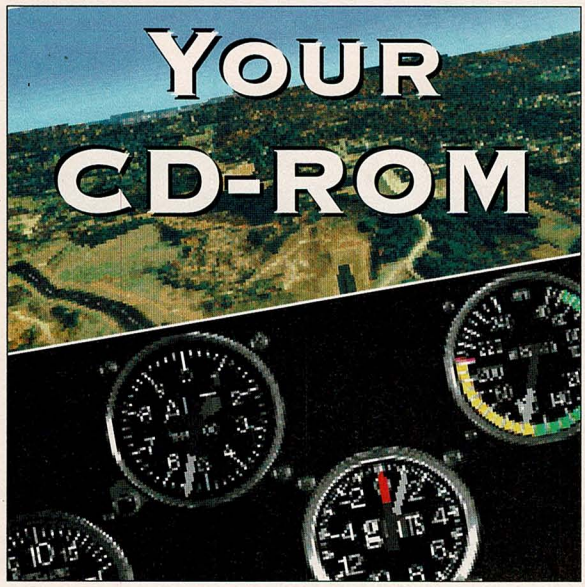

Auckland
Control Panel
Subtitles
Auckland is New Zealand's largest city and many New Zealanders are not keen on it. However, as cities go it's green, clean and rather pleasant.

A neat control panel gives you complete control of this superb tour of the Land of the Long White Cloud.

LICENSING LAWS

This bonus graphics CD-ROM is regrettably available only with UK editions of this issue of MACFORMAT. Sorry, but we were not able to secure international rights to some of the software on this disc.

Continued on next page



There's so much fabulous software on this issue's CD-ROMs that after tracking it all down and squeezing it all on CD, our disc editor Colin Dalziel needed a holiday...

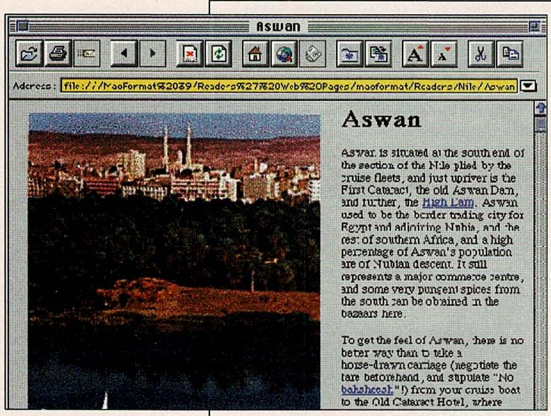
Once again we're proud to bring you a Cover CD packed to capacity with outstanding software. This issue there's a whole suite of Internet programs, including the full version of *Internet Explorer 2.0*, the System 7.5.3 updater, some exceptional demos and even a taste of the World Wide Web that anyone can enjoy even without owning a modem! This issue's highlights:

- **Internet Essentials:** a comprehensive collection of Internet software, including Microsoft's *Internet Explorer 2.0*.
- **System 7.5 Update 2.0:** the very latest UK System Update from Apple – updates your System 7.5 to 7.5.3. For all the details, see page 14.
- **Demos:** a fantastic collection of the very latest applications, games and multimedia demos to try out.
- **Extras:** updaters from Claris and Specular, a special collection of *FileMaker Pro* add-ons, plus a sample of what can be achieved with *KPT's Spheroid Designer.*
- **Readers' Web Pages:** a selection of entries from the MACFORMAT 'Design a Web page' competition, plus a taste of our own Web site – sample the World Wide Web without needing a modem!
- **MacFormat CD Browser:** use our interactive guide as a quick and easy way to see what's on the CD this issue.
- **Readers' Corner:** over 60Mb of amazing artwork and other contributions from MACFORMAT readers.
- **Shareware City:** over 100Mb of the very latest shareware, hot from the Internet.
- **Shareware in MacFormat:** all the software reviewed in this issue's shareware section, starting on page 114.
- **Resources:** essential Mac software no System should be without.

Readers' Web Pages

World Wide Web

Requires: LC II, 8Mb RAM, System 7


Aswan
Address: file:///MacFormat%2039/Readers%27%20Web%20Pages/macformat/Readers/Nile/Aswan
Aswan
Aswan is situated at the south end of the section of the Nile plied by the cruise fleets, and just upriver is the First Cataract, the old Aswan Dam, and further, the High Dam. Aswan used to be the border trading city for Egypt and adjoining Nubia, and the rest of southern Africa, and a high percentage of Aswan's population are of Nubian descent. It still represents a major commerce centre, and some very pungent spices from the south can be obtained in the bazaars here.
To get the feel of Aswan, there is no better way than to take a horse-drawn carriage (negotiate the fare beforehand, and stipulate "No bakshees!") from your cruise boat to the Old Cataract Hotel, where

Experience the wonder that is Egypt and the grandeur that is the Web with these Web pages created by talented MACFORMAT readers.

We had a mountain of disks to search through from our 'design your own Web page' competition, and now you can see some of the best entries for yourself – we've included three dozen of them, as well as the MACFORMAT home page. It's all set up so that you can get a taste of the World Wide Web without a modem!

To get started, all you need to do is double-click to open the **Readers' Web Pages** folder and drag the **macformat.html** document onto the browser icon. This should launch the *Internet Explorer* browser and display the MACFORMAT home page. You can scroll down this page and jump to the others included – readers' own pages, plus some extras to give you a taste of MACFORMAT's site on FutureNet.

If this drag-and-drop method doesn't work on your Mac and you just get a message saying 'This program cannot run on this computer' or something similar, don't panic. We couldn't anticipate all possible set-ups, and it just means that the version we've pre-configured is not the right one for your particular Mac model. All you need to do is open the **Internet Essentials** folder on the CD and install the appropriate version of *Internet Explorer* for your Mac. Once that's done, simply drag the **macformat.html** document from the CD onto the browser icon on your hard disk. Everything should now run fine straight from the CD.

FLOPPY OR CD?

MACFORMAT is available in two editions: one with a CD-ROM and one with a high-density floppy disk. Details of the floppy programs start on page 16. The CD contains all the software that's on the HD Cover Disk, in a folder called Floppy.

Internet Essentials

Internet software

Requires: See individual Read Me files

A comprehensive collection of Internet software to get you on-line and help you get the most from the wired world.

We're delighted to bring you a *complete* Web browser, Microsoft's *Internet Explorer 2.0*. This powerful browser enables you to wind your way around the Web and access countless pages of information and hundreds of megabytes of shareware and freeware.

What's more, we have a special offer from UK Online which gives you free connection, then full access to the Internet and all the services this UK-specific service provider has to offer. The software you need to get started is on the CD.

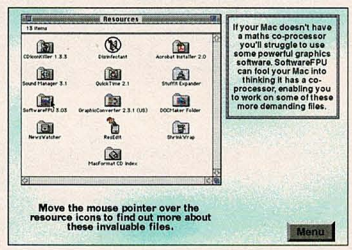
There is also the latest version of Macromedia's *Shockwave*, opening up the world of animation and interactivity to your Web browsing. And to round things off, we've included a collection of indispensable comms shareware and freeware to help you get the most out of the Internet – newsgroup readers, FTP (File Transfer Protocol) suites to enable you to download software direct from the Net, data compression programs to squash anything you're uploading and thus minimise the time you need to spend on-line, and much more. All you need is a modem and phone line!

Visit the World Wide Web, the most graphic part of the Internet, with *Internet Explorer.*

MacFormat CD Browser

Interactive guide

Requires: a double-click on its icon


Resources
If your Mac doesn't have a maths co-processor you'll struggle to use some powerful graphics software. SoftwareFPU can fool your Mac into thinking it has a co-processor, enabling you to work on some of these more demanding files.
Move the mouse pointer over the resource icons to find out more about these invaluable files.
Menu

What *do* those mysterious items in our CD's **Resources** folder do? The Browser tells all!

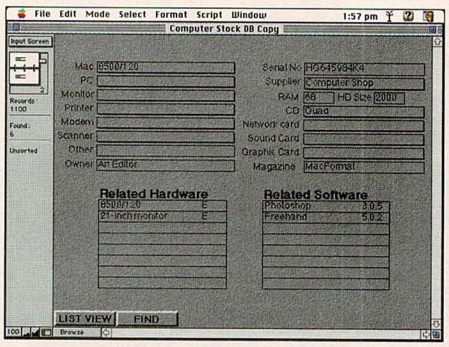
CD-ROMs hold a lot of data – thousands upon thousands of files. Just opening the folders to see what's there can take a long time, and even then the file names don't always tell you what you want to know. So here's a quick and easy way to discover the highlights of the MACFORMAT Cover CD – an interactive guide to the main areas of the disc. Just click to begin exploring any area!

FileMaker Pro 3.0

Database demo

Requires: Any Mac, System 7.0 or later, 4Mb RAM (8Mb for PowerMac)

The first of our great demos from Claris, this demo enables you to try out the powerful features in the latest version of the favourite Mac database. The newly-relational *FileMaker Pro 3.0* earned one of our highest ever ratings in its review in MACFORMAT 37, and this trial version enables you to create and save up to 50 records in your database.



There are a few restrictions: you cannot import graphics into your files and the Help, spell checker, and tutorial files are not included. You can print out, but the words 'FileMaker Pro' appear in the background of printed records. However, even with these limitations you can set up complex relational links and really experience for yourself the power of this incredible software.

The most popular flat-file database on the Mac has now gone relational – here's your chance to try *FileMaker Pro 3.0* for yourself.

Claris Emailer

E-mail suite time-limited version

Requires: Classic II, System 7.0, a modem

Forget faxes, trash the telephone – if you need to send a message, e-mail combines the best of both: it can be as fast as the phone, but it's in writing, minimising the possibility of misunderstanding. For the recipient, an e-mail can be answered right away (like a telephone call) or left until a more convenient time, and it can be saved in text form as a memo or even a permanent record. *Claris Emailer* is the brand new e-mail application from the company who brought you *ClarisWorks*. This time limited demo enables you to access all the features of this easy to use software for a full month – just right if you should happen, say, to take up the free one month UK Online trial offer included with this issue. For instance. Then, for an exclusive opportunity to buy the full version of *Emailer* at a bargain price, see page 59.

CUSTOM ICONS

The icons we use on the CD help to give it a friendly atmosphere, but they do slow it down. Install *CDIcon-Killer*, which is in the Resources folder on the CD, if you want to speed things up.

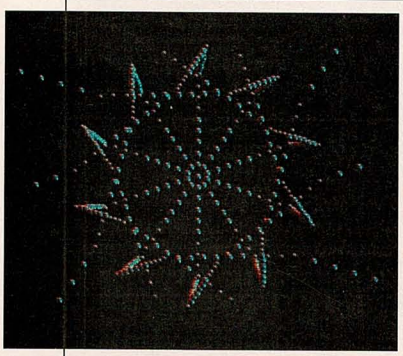
PROBLEMS?

If you have problems quitting any of the rolling demos on the Cover CD, just press **[command] [Q]** and you should go back to the Finder. If this doesn't work, press **[command] [option] [escape]** to Force Quit.

Extras

Updaters and utilities

Requires: See individual Read Me files



Discover what can be achieved with the Spheroid Designer from *Kai's Power Tools 3* in our specially commissioned movie.

If you're a *FileMaker Pro 3.0* user you won't want to miss out on this special selection of goodies from the US CD version of *FileMaker Pro 3.0*. These files are not being released for sale in the UK – they are being given away by MACFORMAT instead! Included is a collection of *FileMaker* artwork to use for buttons, dialogues and designing custom interfaces, plus over 35 AppleScript scripts for automating tasks within *FM Pro 3.0*, and over 40 templates you can use and customise. If however you've got version 2.1 of *FileMaker Pro*, we have the UK updater to upgrade it to version 2.1v3.

Also included is the updater for Specular's amazing 3D package *Infini-d 3.1*, bringing you all the new enhancements of version 3.2 at the click of a button. Finally, there's a QuickTime movie created by our own ex Deputy Art Ed, demonstrating the power of the Spheroid Designer from *Kai's Power Tools 3.0*. To run the movie, open the *Peter's Player* folder, then simply drag the movie's icon on top of the *Peter's Player* icon – it should run straight from the CD with no problems. For a step-by-step guide to how the movie was done and how to get to grips with the Spheroid Designer, turn to page 70. Copies of this issue of MACFORMAT on sale in the UK include a demo of *KPT 3.0* on the second Cover CD – sadly, licensing restrictions mean we can't offer it overseas.

Flight Unlimited

Game demo

Requires: PowerMac 7100, System 7.5, 5Mb free RAM

Flight Unlimited is a giant leap forward in flight sim software. For the first time you are able to fly over a photo-realistic landscape at the controls of your stunt plane. This demo version enables you to begin a flight from mid-air – or, if you're feeling up to it, you can risk starting on the ground. Try it out, then see if you agree with our review – it's on page 122.

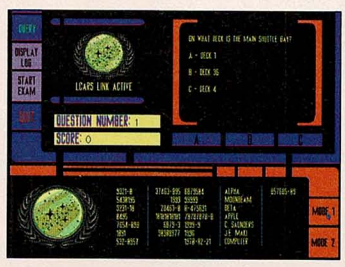
Dazzlingly realistic scenery and authentic aircraft make *Flight Unlimited* a real flying experience.

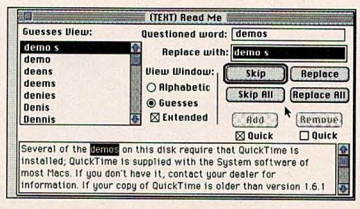
Shareware City

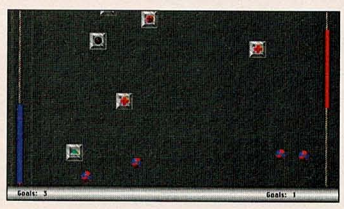
Over 100MB of utilities, games, icons and goodness knows what else

Requires: insatiable curiosity and a lot of time

One of the very best things about the Internet is the huge amounts of shareware you can download. But how do you know what's worth the time and expense to download? How, for instance, would you know that *All Good Things* (right) was actually a very polished *Star Trek* quiz? Once again MACFORMAT comes to your aid: we've gathered the very latest shareware from the Net and arranged it in folders for you, from the excellent *SpellsWell Demo* (below) to the superb *MortalPongbat* and much more.







CHUCK A CABLE AT IT

Last issue we suggested that you could print from your Mac on an old dot-matrix printer using *Chuck's Printer Driver* (it was on the Cover Disk) and a serial-to-parallel connector. If you've had trouble getting hold of one of these, you can order one from cable specialists Meedmore on 0151 521 2202, who can make up a custom connector to suit your needs.

Continued on next page

INSTALLING EXTENSIONS

It couldn't be easier to install Extensions and Control Panels – just drag them onto your closed System Folder and your Mac puts them in the right place for you. Then all you need to do is restart.

RUN TIME!

Some of the demos on the Cover CD require installation on your hard disk – they won't run direct from the CD. Most of these programs use an installer: once you've double-clicked on it, just follow the on-screen instructions and you should be fine. Even if there's no installer, it often helps to copy demos to your hard disk – at the very least they should run faster!

Afterlife Demo

Sim game demo

Requires: Performa 630 or better, System 7.1, 8Mb RAM

Just when you thought they'd run out of ideas for sim games, out comes a new one – and this time it's based on life after death! The goal of *Afterlife* is simple: punish the baddies, reward the goodies, and of course while you're at it make some money! How? If you can cope with the rewarding and punishing bit, you're showered with pennies from heaven, of course! First you must build a gate for the souls to enter the Afterlife (Heaven or Hell – it may be theologically unsound, but you're in charge of both), then a road so they can move around (didn't you know that souls walk in the afterlife?), and after that, naturally, the appropriate kinds of reward or punishment.

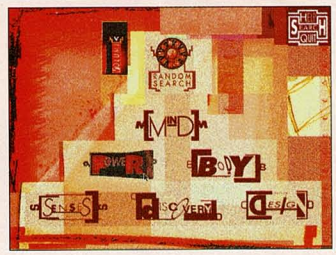
This demo comes in two versions, one for PowerMacs and another for 68K Macs, and it contains a comprehensive and easy-to-follow guide to help you get started. There's also a text version of the guide that you can print out if you prefer your instructions on paper (much easier to handle than tablets of stone).

Make sure the punishment fits the crime in *Afterlife* – and the reward's got to be right too...

Makers of the 20th Century

Multimedia demo

Requires: LCII, System 7.0, 4Mb free RAM



In this demo, you can explore the world of American political history or 'The Body'...

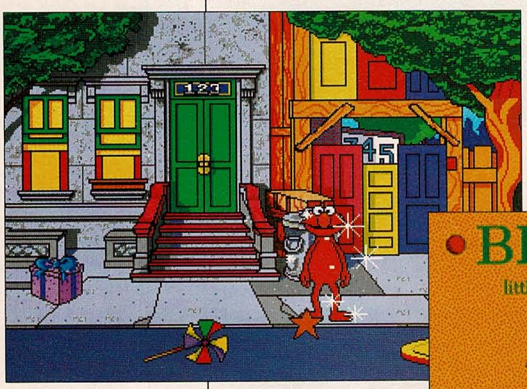
With profiles of 200 historical greats from this century, this forthcoming CD promises to be a great source for information and entertainment. This demo version contains 35 of the profiles, ranging from Olga Korbut to Martin Luther King. You can explore the Sports, Medicine and American political history categories and enjoy video clips, soundtracks and photos as well as text.

... And within the 'Body' category, you can watch video clips of famous sports stars.

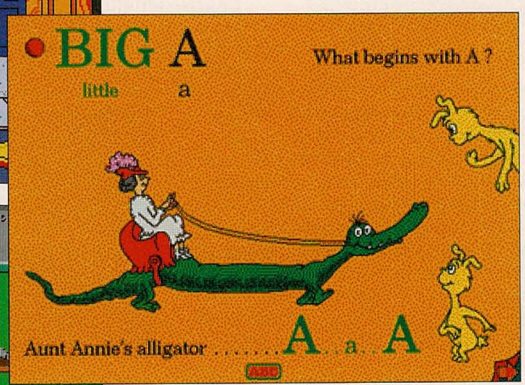
Educational Multimedia

Various

Requires: See individual Read Me files



No less than four top quality educational demos to try out, most of them featuring characters from familiar children's television. There's *Read, Listen & Learn* with the Muppets, *Dr Seuss's ABC, Sesame Street Numbers* and *The Babysitter*. All these demos give you a taste of the full products, with pages to explore and hotspots to click on for unexpected bonuses. Now, what begins with 'A'...?



Help Dean Dunny clean his room. Drag everything that has a capital B or small b on it to Dean's box.
Show Answer
previous
next
contents
exit

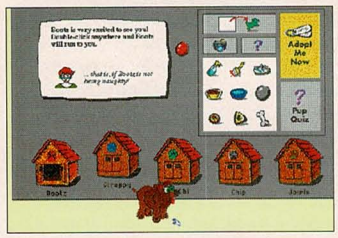
Bright and colourful, with lots of movement and plenty of hidden surprises to discover, these children's demos make it fun to learn about letters.

Dogz

Fun utility

Requires: Quadra, System 7.1, 3Mb RAM

If you've always wanted a dog but have never had the time or space to look after it properly, here is the perfect solution. The *Dogz Adoption Kit* enables you to befriend one of five dogs on your Mac. You can play fetch with him, give him a tickle and see him roll over. In the full version of *Dogz* there are a whole range of other tricks you can teach your favourite pooch – see our review on page 110 for more details. To install this demo, you'll need 8Mb of hard disk space (dogs need their own space, okay?), and you should allow it 3Mb of free RAM to run in, or at least a large suburban garden...



Almost as cute as the real thing, probably at least as intelligent, and no hairs on the rug!

The new Power Macintosh family. They work as fast as you think.

Power Macintosh™ computers have always enjoyed hard work. But now, with enhanced specifications that match (and probably exceed) every power user's wish list, the Power Macintosh family is more capable than ever.

To begin with, they run faster. By how much? Up to 50%, using the most advanced RISC-based PowerPC™ processors available – giving you enough power to juggle monster documents, graphics and multimedia applications with unprecedented speed and ease.

They're also pre-equipped with high-end networking capabilities. Ethernet, AppleTalk,™ TCP/IP – all protocols and connections are on-board. Add fast hard disk drives of up to 2GB, built-in CD-ROM drives, PCI expansion slots (you can even add a plug-in DOS compatibility card) and the latest version of the Mac™ OS, System 7.5.3 – and you'll have a partner that can handle anything from spreadsheets to special effects.

And given the extra time you'll save using a new Power Macintosh, you'll find that you finally have the bandwidth you need, to try your hand at Web surfing and even Web page authoring. Because the new Power Macintosh family also come with the easy-to-use Apple Internet Connection Kit and Adobe® PageMill™ Web authoring software.

For further information and details of your nearest Apple Authorised Reseller, call the Apple Information Centre today, free on 0800 127753.

Power Macintosh 7200/90
Power Macintosh 8200/100
Power Macintosh 8200/120
Power Macintosh 7600/120
Power Macintosh 8500/120
Power Macintosh 8500/150
Power Macintosh 9500/150

With System 7.5.3

Apple

If you already have access to the Internet, you can find out more about Apple products at: http://www.euro.apple.com/uk

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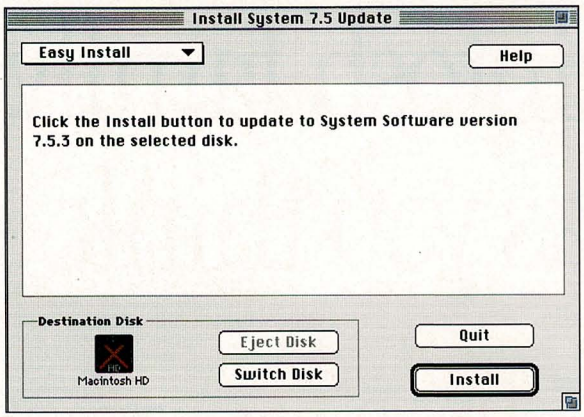
Update your Mac's System

How would you like your Mac to be faster and more stable, with better networking and the ability to talk? Update your system to System 7.5.3 with the official UK updater on our CD, courtesy of Apple and Claris.

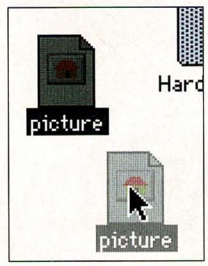
Judging by the number of letters and phone calls we've received just lately, there are certainly a lot of people using System 7.5 out there, and you're all chomping at the bit for the latest version. The UK version of System 7.5 Update 2.0 is here at last, and it's on the MACFORMAT Cover CD-ROM this issue, courtesy of Apple Computer and Claris.



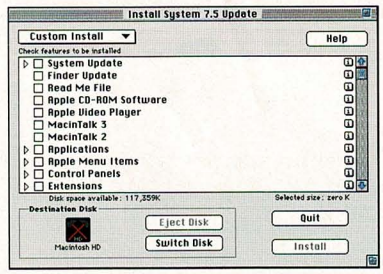
The default Easy Install option will install all the System 7.5.3 files suitable for your model of Mac.

If you have any incarnation of System 7.5 already on your Mac (that means System 7.5, 7.5.1, or 7.5.2), you can use the installer on the Cover CD to update it to System 7.5.3.

The most dramatic improvements in this latest version of the Mac Operating System are ones you can't actually see. Many of your Mac's main processes such as file handling, networking and printing have been updated to be faster and more compatible. If you use a PowerMac, you should find you have fewer program crashes from now on. You may also notice that files copy more quickly and features like Apple Guide and the SCSI Manager work more efficiently.



Whoosh! Now you can see a ghost image of any icon as you move it round your PowerMac Desktop.



If you want more control over the installation, the Custom Install option enables you to select individual files to be installed.

One component of the new System, Open Transport, might be new to you: it's Apple's latest networking software, making connections between Macs faster, more reliable and easier to set up. Previously Open Transport could only be run on PCI PowerMacs like the 7500, but System 7.5.3 extends this feature to many older Macs. Open Transport will run on any Mac with a 68030, 68040 or PowerPC processor, except the Performa 5200, 5300, and 6200. The only 68K based Macs *not* capable of running Open Transport are the Mac 128, 512, Plus, SE, Classic and Mac II.

Apple's Text-to-Speech Extension, now included with System 7.5.3, enables your Mac to speak any sort of written text out loud. But it's another change that will most probably make your friends jealous. If you install System 7.5.3 on a PowerMac and drag any icon to a different location, you'll now see a ghost image of it, with a readable filename, instead of the dotted outline you're more used to! LINDSAY BRUCE

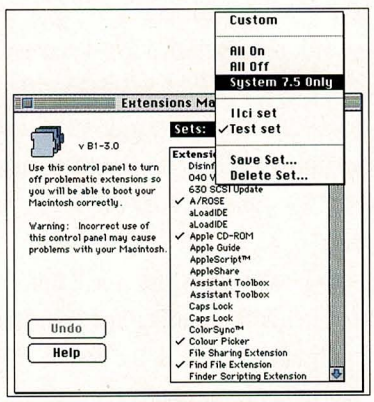
INSTALLATION IS EASY

For the installer to work, you must have System 7.5 or later already installed on your Mac. You can check this by selecting **About This Macintosh** from the Apple menu. You'll find the System version number at the top right-hand side. Before you install System 7.5.3, you should carefully read the 'Installing This Update' file inside the System Update folder.

To install the System Update on your Mac, follow these steps:

1 Open the Extensions Manager Control Panel. Select the **System 7.5 Only** option (or 7.5.1, whichever applies). You need to do this to avoid any unusual Extensions or Control Panels conflicting with the installation. If you are using a non-Apple CD drive or monitor driver, you will have to switch its Extensions back on now before you continue.

2 Restart your Mac. Insert the MACFORMAT 39 CD into your Mac and open the System Update folder.



Using the Extensions Manager to disable all but the most basic Extensions can save a lot of trouble with clashes later on.

3 Double-click on the Installer icon, and click on **Continue** when you reach the welcome screen.

4 The default installation is **Easy Install**, which automatically installs the correct files for your particular Mac. If you wish to install other specific files at a later date you can use the **Custom Install** option and select the files you need.

5 If you have more than one hard disk, select the drive containing your System Folder using the **Switch Disk** option.

6 Click the **Install** button and wait a few minutes while the Installer does the business. Thanks to the wonders of CD-ROM, you won't have to do anything during the installation.

7 When the installation is complete click on the **Restart** button so you can take advantage of all the new features of System 7.5.3.

8 The last stage is to re-install all your existing non-System-7.5 Extensions and Control Panels via the Extensions Manager Control Panel. Again, you have to restart to make them all active again.

SYSTEM 8?

This latest version of the Operating System introduces some neat features that people were expecting to arrive only with System 8, such as 'ghost dragging'. But what would you *like* to see in the next major revision of the System? Write to 'System 8 Wish List', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

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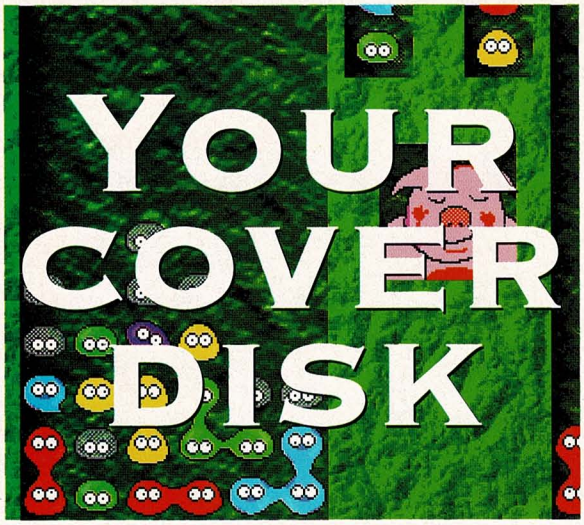


START HERE

High density floppy disks normally contain up to 1.4Mb of software, but to bring you as much as possible, we use a compression program to fit more on. So you need to decompress the software before using our Disk, and this issue you'll need 3.2Mb of hard disk space. We also recommend that you always make a backup of the MACFORMAT Cover Disk, just in case anything goes wrong.

Here's what to do...

Backing up your Cover Disk

1. Ensure that the original MACFORMAT Cover Disk is write-protected (move the tab so that you can see through the hole) and insert it in the disk drive.
2. When the icon appears on the Desktop, drag the Disk's icon over your hard disk's icon. This copies the contents onto your hard disk, but they are still compressed and cannot be used yet.
3. Drag the Cover Disk icon to the Wastebasket to eject the Disk.
4. Now insert a blank, formatted high density disk. Did we mention that you'd need that? Oops.
5. Finally, drag the MACFORMAT 39 folder from your hard disk on to the blank disk's icon to initiate your backup.

Decompressing the Cover Disk contents

1. To decompress the Cover Disk contents, open the MACFORMAT 39 folder on your hard disk and double-click on the MACFORMAT 39 icon.
2. You'll see a screen telling you about the compression utility we've used. Click **Continue** to go on.
3. A box then asks you where you want to save the software. Choose the place on your hard disk where you want everything stored and click **Save** to get this issue's programs.

Just a word of warning...

Before installing the Cover Disk, we recommend that you always back up any important work on your hard disk. This precaution will avoid problems should it transpire that any of the software isn't compatible with your set-up.

We make every effort to check our Cover Disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any resulting losses. So please, take the precaution of backing up first.

We can't guarantee that this issue's floppy disk will change the course of your life, but Derek Smith reckons it might just change the face of your Mac forever...

Colin Dalziel is off on his holidays, so MACFORMAT has asked Derek Smith to return to his old job and tell you about the floppy disk Colin put together before he deserted us for a sunny Greek island. It wouldn't be so bad but he took Future Publishing's receptionist with him. Anyway, we've got a great line-up of games and some of the most useful mini-utilities you've seen for your Mac.

Skittles

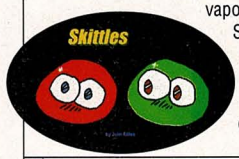
Arcade game

Requires: colour Mac, 2.5Mb of free RAM

Tetris was addictive, but *Skittles* is both addictive and cute. Little squidgy creatures fall from the sky and you have to carefully arrange them as they fall to the ground. If four or more matching Skittles are adjacent, they vapourise, making a hole and letting any Skittles you have stacked above fall down.

This makes for a very addictive game, but the best is yet to come, because *Skittles* is designed for two players. You can either choose to play against another human or, if you don't know any, then you can play against your Mac.

What's the challenge? Well, when you vapourise a group of Skittles, you cause a group of grey mutant ones to fall into your opponent's half, making life increasingly difficult for them. Of course, your opponent's constantly trying to do the same to you. Great fun!



These Skittles may be cute blobby creatures, but they threaten the safety of the world, so you've got to vapourise them.

Finder Extensions Enabler

Desktop utility

Requires: any Mac, System 7.1 or later (7.5.3 required to use all features)

This nifty little Extension does several rather unrelated but very useful jobs. First, if you hold down the **[control]** key while dragging an icon, you can automatically create an alias of the original, with exactly the same name. This speeds up the lengthy and awkward process of making an alias, moving it, then deleting the word 'alias' from the end of the name.

Once you have some aliases, you might need to find the original item that they point to. To do this, you normally need to open the Get Info window, but now you have an extra menu item called **Reveal Original** under the **File** menu, which itself has a keyboard shortcut. So now, all you need do is click once on an alias, then press **[command] R.**

If you've always wanted a keyboard shortcut to put things in the **Wastebasket** (or **Trash** if you've installed the US version of 7.5.3), now you've got one. Click once on an item, then press **[command] [delete]** to send it straight to the bin (the Read Me file tells you to press **[control] [delete],** but it's wrong).

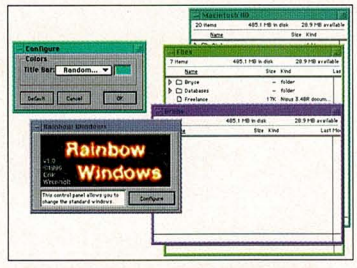
Each of these gadgets is only a little thing, but put them together and you'll soon wonder how you did without them.

Rainbow Windows

Desktop Utility

Requires: colour Mac

Computing should never be taken too seriously, so why not give your Mac a psychedelic experience and install this nifty Control Panel. It enables you to give any window, whether in the Desktop or in an application, a coloured border – and that's more colours than you can imagine. You can choose a specific colour for your all windows, or alternatively select the random option, where a colour for every window is picked randomly when it's opened – a surprise every time. Admittedly this isn't the most useful utility in the world, but anything that brightens up your life has to be a good thing. Hasn't it?



Give your Desktop a colourful face lift with *Rainbow Windows*.

GOT A PROBLEM?

If either your cover-mounted high density disk or CD-ROM is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

Return HD disks to:
TIB plc, TIB House
11 Edward Street
Bradford, BD4 7BH

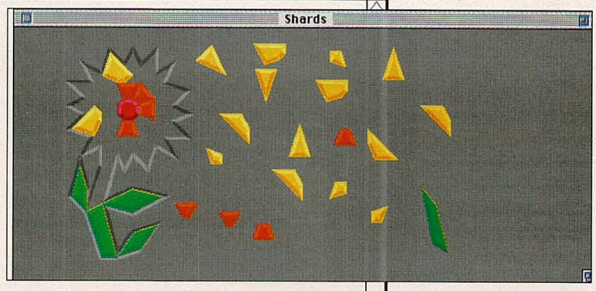
Return CD-ROMs to:
MACFORMAT CD returns
Andy Pope, Ablex
Harcourt
Halesfield 14
Telford, Shropshire, TF7 4QR

Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold any stocks of them and can only refer you to the addresses above.

Shards 1.3

Puzzle game

Requires: colour Mac, 1Mb of free RAM



This classic puzzle game has finally made it to the Mac, but it's so addictive that once you've worked away until midnight to solve one of the puzzles, you may begin to wish it had never been released.

The idea is simple: you start with a shaped hole, and a number of pieces that fit in the hole. In order to make them all fit, you have to turn to the pieces, flip them over, and generally juggle them around. Each puzzle has untold potential solutions, but only one of them is correct. There are lots of puzzles to be solved, but you can't access all of them until you pay the shareware fee. Luckily this is only $10 – around £7 – and if you find it half as addictive as we did in the MACFORMAT office, you'll be happy to pay the fee!

If *Shards* looks like that game you get every year in your Christmas cracker, then that's because it is. The difference is, this one's got lots of puzzles, but no paper hat!

Utilities

Time savers

Requires: any Mac, System 7 or later

QuikHide 2.0 and *EjectDisk 1.0.3* are a terrific pair of utilities, designed to simplify mundane, repetitive tasks. To install either of these, drag its icon over to your closed System Folder – your Mac does the rest. **Restart** to put your new Extensions to work.

EjectDisk does what its name suggests. Press the **[F15]** key on your keyboard (or **[command] [esc]**) and any mounted floppy disks will be ejected. It's simple, quick and doesn't leave a ghost icon on your Desktop. There's actually two ways provided for you to install this utility. You could run an FKey installer instead of dropping it in your System Folder. But FKeys are a bit outdated, so it's better to take the Extension route.

And while you're up to your elbows in your System Folder, consider installing *QuikHide*, a utility so good that it will almost definitely stay on your Mac forever.

If you're one of those people lucky enough to have plenty of RAM, then go ahead and use it, keeping plenty of programs open. But if you're less well endowed, then you'll find yourself moving to the Desktop and selecting **Hide Others** from the **Application** menu in the top right corner, leaving you with a clean Desktop to work with. When *QuikHide* is installed, you'll see a small red dot just next to the **Application** menu. Click on this to hide all applications and return to the Desktop.

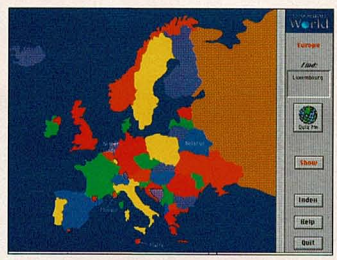
GeoGenius World

Geography quiz

Requires: colour Mac, 3Mb of free RAM

How good is your geography? Well, now you can find out with this quiz program, created using *HyperCard's* arch rival *SuperCard.*

You start by choosing which continent you would like to be tested on and you are then shown a colourful map of that continent with each country labelled. Take good look at the countries, because when you click the Quiz button, all the labels disappear. You'll then be asked to locate all the countries one by one, merely by clicking on them. It's very simple to play, and you might just learn where Latvia actually is.

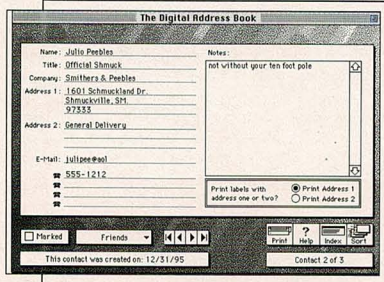


Take a cheap trip around the globe with *GeoGenius World.* Okay, so it's not as exciting as going on the QE2.

The Digital Address Book

Contact manager

Requires: any Mac, HyperCard 2.1 or later



It may not be the most glamorous contact manager in the world, but neither is MACFORMAT's secretary, and she's useful.

Having friends can be a time consuming and complex affair, apparently. If you have contacts you want to keep track of, then there are several commercial programs around, but these tend to cost lots of money and probably have more features than you'll ever need. If your requirements are modest, then *The Digital Address Book* could be just what you're waiting for.

Using *HyperCard,* it enables you to keep track of as many people as you like, storing all their basic details such as name and address of each, plus several telephone numbers and an e-mail address if they're wired. There's also an option to keep freeform notes.

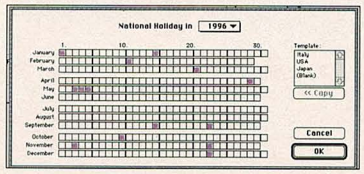
If you want to keep family, friends and business contacts separate, you can give people different labels, so it's easy to search through all your contacts. Once you've found who you want, you can also print out their details in a variety of layouts including labels. Now you've got no excuse to be anti-social, have you?

CalendarMenu 3.01

Event diary

Requires: any Mac, System 7.5 or later

CalendarMenu is the ideal companion to *Digital Address,* because it keeps appointments for you. But instead of being some bloated application, stealing excessive amounts of your precious RAM, this neat little Control Panel enables you to keep a simple diary which is always near to hand and quick to access, so it's more likely to become part of your routine.



You can define a range of options in *CalendarMenu,* including as many holidays as you'd like, so you can keep that date with the beach.

Once it's installed, you'll see an extra menu item, just to the left of the **Application** menu. Pressing on this menu shows a calendar, which you can tear off if you desire. Double click any date to enter a short text message; that date will then appear with a line underneath to indicate there's some text attached. To read the messages, just click on the calendar and move your mouse around. Your memos will appear at the top of the calendar when your pointer moves over each particular date.

FLOPPY TOO

We are always on the lookout for readers' contributions for the floppy as well as the CD, so don't be put off just because you don't have a CD-ROM drive. Send them in to:
The Disk Editor,
MACFORMAT,
30 Monmouth Street,
Bath BA1 2BW.

DE-INSTALL

If you want to de-install any Extensions or Control Panels, you'll need to open the System Folder, open the relevant folder, then remove the icon. Some programs, such as *CalendarMenu,* have both an Extension and a Control Panel – check this, and if necessary remove both.

GH offers you our LOWEST Prices EVER and STILL options like...

10% Deposit & NOTHING TO PAY✦ for up to 6 Months OR NEW 'LOWER COST' Finance

THE NEW Disney PLUS 3 PACK

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Packaging shown for illustration purposes only.

PERFORMA 5300, 5320, 6300 and 6320 Macs are NOW supplied with the NEW...

'DISNEY PLUS 3' SOFTWARE PACK

• At Ease • Mavis Beacon • ClickArt • Thinkin' Things 2 • Claris Works • Millie's Math House • Spin Doctor • System Software • HyperCard Player • MacGallery • SuperMaze Wars - ALL PRE-INSTALLED ON THE HARD DRIVE

PLUS... • The Way Things Work • MYST • Daedalus Encounter • Grolier Encylopedia • Making Music • RedNex • Rock Rap & Roll • LION KING Story Book • ALADDIN Activity Centre • TOY STORY (Preview) - all on CD ROM!!!

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APPLE PERSONAL COMMS SOLUTION... FREE OF CHARGE! *Macs marked with this symbol are supplied with an internal 14.4 or 28.8 Modem with send and receive software for FAX, ANSWERPHONE, & INTERNET SERVICES (via eWorld etc).*

MACINTOSH MPEG BONUS — Macs with MPEG (full motion CD Video Playback) include... RETURN TO ZORK, OCEAN LIFE HAWAII, WARREN MILER and WILD AFRICA FREE OF CHARGE!

CHECK OUT OUR NEW LOWER PRICING - OUR LOWEST PRICES EVER!

PERFORMA 5200/6200

GH 5200 & 6200 MACs include the following 'PLUS 2' software collection... ClickArt, Claris Works, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2 PLUS... EA 3D ATLAS, ASTERIX LANGUAGE, CONCERTWARE, MYST, GROLIER ENCYCLOPAEDIA, ROCK-RAP-ROLL, SNOOPY, MAKING MUSIC, REDNEX, DORLING KINDERSLEY "The Way Things Work" and DAEDELUS ENCOUNTER... ALL ON CD!

NB. Some titles are pre-installed ready for use and are NOT packaged. CD Disks are provided separately.

	RAM	HD		MONITOR	CD	TV	K/B	Price
5200	8Mb	800Mb	✘	15" Int. FST	✔	✘	✔	£853
	8Mb	800Mb	✘	15" Int. FST	✔	✘	✔	£929
6200	8Mb	800Mb	✘	14" M/S	✔	✘	✔	£909
	8Mb	800Mb	✘	15" M/S	✔	✘	✔	£969
	8Mb	500Mb	✘	✘	✔	✔	✘	£639
	8Mb	500Mb	✘	14" M/S	✔	✔	✔	£939
	8Mb	500Mb	✘	15" M/S	✔	✔	✔	£989
	8Mb	800Mb	✔14.4	14" M/S	✔	✘	✔	£959
	8Mb	800Mb	✔14.4	15" M/S	✔	✘	✔	£1019

HURRY WHILE STOCKS LAST AT THESE PRICES!

PERFORMA 5300/5320

5300, 8/1200, CD

FROM... £1269

JUST £10.05 PER WEEK

- 5320 - 120MHz Power PC!!!
- 15" MultiScan Monitor with TV/Video options

	RAM	HD		MONITOR	CD	TV	K/B	Price
5300	8Mb	1.2Gb	✔14.4	15" Int. FST	✔	✘	✔	£1269
	16Mb	1.2Gb	✘	15" Int/MPEG	✔	✔	✔	£CALL
	16Mb	1.2Gb	✔14.4	15" Int/MPEG	✔	✔	✔	£1699
NEW RANGE 5320	8Mb	1.2Gb	✔14.4	15" Int. FST	✔	✘	✔	£1439
	16Mb	1.2Gb	✔28.8	15" Int/MPEG	✔	✔	✔	£1999

POWERMACS

7200/75, 8/500

FROM... £869

£6.88 PER WEEK

- PCI Technology
- RISC CPU
- NOW up to 150MHz!

NEW... 7600, 8200, 8500 & 9500 MODELS JUST ANNOUNCED - Call GH Now!!!

	MODEL	MHz	RAM	HD	CD	Price
	7200/75	75	8Mb	500Mb	✘	£869
	7200/90	90	8Mb	500Mb	✔	£1079
	7200/90	90	16Mb	1Gb	✔	£1329
	7500/100	100	8Mb	500Mb	✔	£1479
	7500/100	100	16Mb	1Gb	✔	£1999
NEW	7600/120	120	16Mb	1.2Gb	✔	£2249
NEW	8200/100	100	8Mb	1.2Gb	✔	£1399
NEW	8200/120	120	16Mb	1.2Gb	✔	£1749
	8500/120	120	16Mb	2Gb	✔	£2849
NEW	8500/150	150	16Mb	2Gb	✔	£3199
	9500/132	132	16Mb	2Gb	✔	£2979
	9500/132GR - with Apple Graphics Card					
		132	16Mb	2Gb	✔	£3149
NEW	9500/150GR - with Apple Graphics Card					
		150	32Mb	2Gb	✔	£3599

ADD... CLARIS WORKS 4 TO ANY POWERMAC ORDER AND ONLY PAY AN EXTRA £30 (+VAT)

PERFORMA OPTIONS

NEW RANGE

The following options are all suitable for use with 630/5200/5300/6200/6300...

Personal Comms Solutions *(models without Ethernet)* FAX, ANSWERPHONE, & INTERNET via eWorld etc 14.4 version £109 28.8 version £179

Ethernet Cards *(for models without Personal Comms Solution)* - Thin Co-Ax (direct fit) £59 UTP (direct fit) £59 AUI (requires adaptor) £59

VIDEO OPTIONS: Video-In Card - £89 Video-In/TV Tuner Card - £219 Video-Out Card - £219

MPEG FMV Video CD Playback Card *(only fits 630 models without a DOS Card)* £175 SIMM/DIMM RAM Upgrades £CALL

NEW

POWERBOOK

190/66, 4/500

FROM... £929

JUST £7.35 PER WEEK

190/66 4/500 Mono £929 190/66 8/500 Mono £1145

190cs/66 4/500 Dual Scan £1279 190cs/66 8/500 Dual Scan £1489

5300/100 8/500 Mono £1429 5300cs/100 8/500 Dual Scan £1799

5300cs/100 16/750 Dual Scan £2249 5300c/100 8/500 AM £2379

5300c/100 16/750 AM £2899 5300ce/117 32/1100 AM £3999

DUO 2300c/100 8/750 AM £2369

DUO 2300c/100EM 20/1100 AM £3079

AM = Active Matrix Display

PRICE CRASH

Our PowerBook 190, 2300 & 5300s include: • Route 66 • eWorld • Mobility Pack • 2 Games

PowerBook 190s also include... • Claris Works

BUY EITHER A POWERBOOK 5300 OR DUO AND ADD... CLARIS WORKS 4 FOR ONLY £30 (+VAT)

• NEW 190/5300s include PCMCIA & expansion bay

ACCESSORIES

EASi Charge for PowerBook 190/5300 Series	£120
EASi Dock for PowerBook 500 Series Inc. Ethernet	£149
EASi Pack Auxiliary for PowerBook 500 Series	£349
EASi Pack for PowerBook 500 Series	£139
EASi Pack for PowerBook 190/5300 Series	£128
EASi Power Cigarette Lighter for 190/5300 Series	£75
PSION Dacom Gold Card PCMCIA	£219
Please ask about similar accessories for PowerBook... 100 Series, 200 Series, 500 Series that are not listed above	

PERFORMA 6300/6320

6300, 8/1200, CD

FROM... £949

JUST £7.52 PER WEEK

- 6300 - 75/100MHz Power PC
- 6320 - 120MHz Power PC!!!
- Monitor options up to 21" *(may require an optional video card)*
- Quad speed CD Drive

	RAM	HD		MONITOR	CD	TV	K/B	Price
6300	8Mb	1.2 Gb	✘	✘	✔	✘	✘	£949
	8Mb	1.2 Gb	✘	14" M/S	✔	✘	✔	£1249
	8Mb	1.2 Gb	✘	15" M/S	✔	✘	✔	£1299
NEW RANGE 6320	8Mb	1.2 Gb	✘	✘	✔	✘	✘	£1089
	8Mb	1.2 Gb	✘	14" M/S	✔	✘	✔	£1389
	8Mb	1.2 Gb	✘	15" M/S	✔	✘	✔	£1429

POWERMAC OPTIONS

256k Cache DIMM for 7500/8500/9500	£99
512k Cache DIMM for 7500/8500/9500	£129
Apple RISC 604, 120MHz Upgrade for 7500/7600/8500	£425
Apple RISC 604, 132MHz Upgrade for 7500/7600/8500	£638
Apple 486, 66MHz DOS Card	£169
Apple 586, 100MHz, 8Mb DOS Card	£CALL
Apple Pentium 100MHz, 8Mb DOS Card	£CALL

POWERBOOK Special OFFER

WHILE STOCKS LAST... YOU CAN CHOOSE A FREE GIFT FROM GH WHEN YOU BUY ANY OF OUR COLOUR POWERBOOK 5300s Worth up to £269+VAT!!!

GH LIMITED OFFER WITH ANY COLOUR POWERBOOK 5300 - Choose either a...

- FREE 28.8 PCMCIA CARD TDK MODEM OR a...
- FREE STYLEWRITER 2200 Colour Printer

Creditcharge

If you can't visit us personally, why not ask for an Application Pack for a convenient, flexible GH BUDGET ACCOUNT CARD. No deposit and repayments over convenient periods can be arranged by mail. Once established, you can purchase with your new card and leave existing credit card limits intact.

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POST OR FAX... Please include your Name, Address and preferably daytime and/or evening telephone/fax number with your requirements. If using a debit/credit card include its number and valid from/expiry date (and issue number with Switch cards). Make cheques (please allow 7 days clearance), Drafts or P.O.s payable to Gordon Harwood Computers Limited.

GH PRICES... All UK and EC customers please add VAT at the standard rate of 17.5% to all prices. UK overseas Armed Forces Personnel may be exempt VAT - please ask for details.

DELIVERY... We offer prompt shipment with fully insured express delivery options throughout the UK, Europe and Worldwide at a very modest cost. If ordering by mail, please call to confirm delivery charges.

GH WARRANTY... Manufacturers' standard warranties apply or, ask about GH's comprehensive extended options which are always recommended for professional users to minimise costly down time - full details available on request.

GH PERSONAL FINANCE[S] FACILITIES...

PERSONAL FINANCE - DEFERRED PAYMENT PLAN :FOR INDIVIDUALS VISITING OUR SHOWROOM PAYING A MINIMUM OF 10% DEPOSIT

♥OPTION 1: ON BALANCES OVER £2000 - PAY NOTHING MORE FOR 6 MONTHS OR, ♥OPTION 2: ON BALANCES OVER £1200 - PAY NOTHING MORE FOR 4 MONTHS OR,

†OPTION 3: ON UNLIMITED BALANCES OVER £500 - CHOOSE OUR 'LOWER COST' FIXED TERM PERSONAL LOAN, 24.9% APR OVER 2 YRS, OR 21.9% APR OVER 3 YRS

♥OPTIONS 1 & 2 - *During the deferred period you can settle IN FULL (without finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit 27.8% APR, 2.07% Month - Payment Book 32.4% APR, 2.37% Month). And... for the first 6 or 4 months you'll also receive FREE Agreement Life Cover*

†OPTION 3 - *a Low Cost alternative 2 or 3 year agreement, for those who wish to spread the cost of their purchase over a longer period than 4 or 6 months.*

Written details available on request. [S]Subject to status and an £18 arrangement fee. Please contact us prior to visiting for Easy Application requirements.

FINANCE

GH BUSINESS FINANCE FACILITIES...

BUSINESS FINANCE : Weekly rates shown exclude VAT and are based on a fixed cost 3 Year Apple Commercial Credit Lease payable quarterly after an initial deposit payment. Available to all businesses (including recently established) making a minimum total purchase from GH of £750 - subject to status. FULL Details available on request.

Manufacturers' specifications and GH prices are correct at time of going to press, however, they may fluctuate and we therefore reserve the right to amend them - please confirm prices before ordering. This advertisement is an invitation to treat, not an offer to sell. Goods are not supplied on a trial basis. All transactions are subject to Harwood's Terms and Conditions of Sale, a copy of which is available on request. E.&O.E.

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GH Budget 14" Multisync Monitor inc. Adap. (.28)	£189
Apple 14" MultiScan (.28)	£225
Apple 15" Multiscan (.28)	£285
Apple 17" 1705 MultiScan (.28)	£CALL
Apple 17" 1710 Trinitron MultiScan (.26)	£CALL
Apple 17" Trinitron 1710AV MultiScan (.26)	£CALL
Apple 20" Trinitron MultiScan II (.26)	£1249
NEC 14" XV Multisync (.28) inc. Adap.	£219
NEC 15" XE Multisync (.28) inc. Adap.	£419
NEC 17" XV Multisync (.28) inc. Adap.	£589
NEC 17" XE Multisync (.28) inc. Adap.	£739
NEC 17" XP Multisync (.28) inc. Adap.	£969
Sony 15" SX1 Trinitron Multisync (.26) inc. Adap.	£299
Sony 15" SF2 Trinitron Multisync (.26) inc. Adap.	£339
Sony 17" SF2 Trinitron Multisync (.26) inc. Adap.	£549
Sony 17" SE2 Trinitron Multisync (.26) inc. Adap.	£779
Sony 20" SF2 Trinitron Multisync (.26) inc. Adap.	£1149

GH Prices INCLUDE Adaptors for NEC & Sony Monitors!

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24-BIT Accelerated Graphics Card for £329
PDS Macs... For LCIII/475/630/5200/5300/6200/6300
(Allows 1152 x 870 resolution on 21" Monitors at 8 Bit, or 832 x 624 on 17" Monitors at 24 Bit. Plus 4096 x 1536 Virtual Desktop)

External Monitor Connection - 5200/5300 £29

Ask us about VRAM (Video RAM) for your Mac...
to give your monitor higher resolutions, more colours etc.

SCANNERS

Apple Color One 600-27 Scanner £399

UMAX

Model	Photoshop	Transp. Adap.	Price
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VISTA S6e	LE	✘	£269
VISTA S6e	FULL	✔	£725
VISTA S12	LE	✘	£575
VISTA S12	FULL	✘	£675
VISTA S12	FULL	✔	£975
GEMINI	LE	✘	£779
GEMINI	FULL	✘	£879
GEMINI	FULL	✔	£1199
POWERLOOK II	FULL	✘	£1699
POWERLOOK II	FULL	✔	£1999
POWERLOOK II with BINUSCAN	FULL	✔	£2799
MIRAGE A3	FULL	✔	£5995

PRICE CRASH! PRICE CRASH! NEW

Transparency Adaptors *(Quote model on order)* £399

TextBridge bought with any Umax scanner £39

EPSON

Model	Photoshop	Textbridge OCR	Price
GT 5000	LE	✔	£325
GT 8500	LE	✔	£495
GT 8500	FULL	✘	£669
GT 9000	LE	✔	£589
GT 9000	FULL	✘	£779

Transparency Adaptor... £399
FOR 6000, 6500, 8000, 8500 and 9000 models
(Please quote scanner model requirements with order)

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Visioneer Paperport for Mac WHILE STOCK S LAST £CALL

Visioneer Paperport VX for Mac £239
(Both come with WordScan OCR Software)

NEW Port Juggler for Paperport £89

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NEW Casio QV-10 Digital Camera £459

Apple QuickTake 150 inc. Mac/PC Kit £379

Quicktake 150 Connector Kit for second Mac or PC £48

QuickTake Carry Case £40

Connectix QuickCam £79

WACOM TABLETS

Artpad II... £119 Artpad II with Dabbler... £150

Ultra Pad... A5 - £255, A4 - £355, A3 - £555

KEYBOARDS

Third Party Design Keyboard	£40
Apple Design Keyboard	£76
Apple Extended Keyboard	£135
Apple Adjustable Keyboard	£160

PRINTERS

LASERS

Apple Personal Laser 300 - 300dpi Mono	£415
Apple Laser 4/600PS - 600 dpi Mono	£589
Apple Laser Select 360 - 600 dpi Mono	£989
Apple Laser 16/600 - 600 dpi Mono	£1549
Apple Color LaserWriter 12/600PS 600 dpi Colour and Mono	£4999
NEC SuperScript 3000 - HIGH QUALITY COLOUR	£575

INKJETS

NEW

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Apple StyleWriter 1500 Colour 720 x 360dpi	£219
Apple StyleWriter 2200 Colour 720 x 360dpi	£269
Apple StyleWriter 2400 Colour 720 x 360dpi	£234
Apple StyleWriter 2500 Colour 720 x 360dpi	£289
Apple StyleWriter EtherTalk Kit	£144
Epson Stylus Colour II 720 x 720dpi	£249
Epson Stylus Pro XL Colour - A4 720 x 720dpi	£379
Epson Stylus Pro XL Colour - A3 720 x 720dpi	£849
Epson Stylus Pro POSTSCRIPT RIP	£179
HP 340 DeskWriter Mono 600 x 300dpi	£209
HP 600 DeskWriter Mono 600 x 300dpi	£209
HP 660C DeskWriter Colour 600 x 300dpi	£269
HP 850C DeskWriter Colour 600 x 600dpi	£349
Fargo PhotoFun Picture/Photo Printer	£299

PRICE CRASH! PRICE CRASH! PRICE CRASH!

PowerPrint Use parallel printers with Macs £79

StyleScript Adobe PS RIP for Apple Colour SWs £75

CONSUMABLES

StyleWriter... I/II/1200	Black Cartridge	£14
StyleWriter 2400	Black Cartridge	£21
	Colour Cartridge	£24
	Black Ink Tank	£6
	Colour Tank	£12
Colour StyleWriter Pro	Black Hi-Capacity Cartridge	£9
	C, M, or Y Cartridge (each)	£8
	CMYK - 4 Colour Set Cartridge	£30
Epson Stylus	Black Cartridge	£11
	Colour Cartridge	£24
Epson Stylus II	Black Cartridge	£15
	Colour Cartridge	£22
Epson Stylus A4 Paper	360dpi Paper, 100 Sheets	£12
	720dpi Paper, 100 Sheets	£16
HP 340 DeskWriter	Black Cartridge	£18
HP 600/660 DeskWriter	Black Cartridge	£18
	Colour Cartridge	£20

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For Apple LaserWriter 300, 320, 4/600 £49
For Apple LaserWriter 360 £81
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Toner Cartridges - For MOST other Lasers stocked - £Call

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D2, 850Mb	£159
D2, 1Gb	£199
D2, 2.1Gb	£479
D2, 4.0Gb (Atlas AV)	£849
EXTERNAL HARD DRIVE	
D2, 850Mb	£199
D2, 1Gb	£249
D2, 1Gb - AV Model	£269
D2, 2.1Gb	£529
IOMEGA 100Mb ZIP Drive - inc. Cartridge	£139
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Formac 200Mb Syquest Drive - inc. Cartridge	£299
Formac 270Mb Syquest Drive - inc. Cartridge	£349
Formac 230Mb Optical Drive - inc. Cartridge	£379
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D2 230Mb Optical Drive - inc. Cartridge	£399
D2 EZ135 135Mb Syquest Drive - inc. Cartridge	£145
D2 EZ135 135Mb Cartridge	£14
NEW IOMEGA 1Gb. JAZZ Drive	£449
SYQUEST CARTRIDGES...	
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88Mb Capacity Cartridge	£34
200Mb Capacity Cartridge	£52
270Mb Capacity Cartridge	£40
230Mb OPTICAL DISKS	£20
YAMAHA CD WRITER Double Speed - Write, Quad Speed Read including Toast Software	£799
NEW YAMAHA CD WRITER Quad Speed - Write, Quad Speed Read including Toast Software	£1199

NEW PRICE CRASH!

CD ROM DRIVES

D2 CD 600e Quad Speed inc. Cables	£169
Apple CD 600e Plus Quad Speed	£219
Apple CD 600i Plus Internal Quad Speed	£219
(Requires fitting kit - please call for details/price)	

PRICE CRASH!

COMMS

Apple GeoPort for AV/Power Macs - 14.4	£94
Apple Personal COMMs Solution - 14.4	£109
(For 630/5200/5300/6200/6300, see 'Performa Options' below left)	
Motorola 3400 Pro V34 - 28.8	£139
US Robotics Sportster 288 V34 - 28.8	£159
Global Village TelePort Gold II - 14.4 BABT	£119
Global Village TelePort Platinum - 28.8 BABT	£179
Global Village PowerPort Gold PCMCIA PCMCIA 14.4 BABT	£199
Global Village PowerPort Platinum PCMCIA PCMCIA 28.8 BABT	£449
Psion Dacom Gold Card - PCMCIA	£219

PRICE CRASH! PRICE CRASH!

FREE INTERNET access software via Compuserve with ALL Modems!

RAM UPGRADES

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4Mb	£CALL	8Mb	£CALL
16Mb	£CALL	32Mb	£CALL

DIMMs...

4Mb	£CALL	8Mb	£CALL
16Mb	£CALL	32Mb	£CALL

Memory Prices Fluctuate Daily, Call GH FIRST!!!

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Adobe Illustrator 5.5	£279	Wine Guide '95	£24
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Adobe Collection	£549	Groliers Ency. Science Fiction	£30
KAI's Power Tools 3.0	£95	Kid Pix 2	£26
KPT Vector Effects	£95	Dorling Kindersley...	
KPT Power Photos II	£95	The History of the World	£25
KPT Convolver	£95	The Way Things Work	£38
KPT Bryce II	£139	Incredible Dictionary	£25
Aldus Freehand 5.0	£319	Encyclopaedia of Science	£38
Claris Works 4.0	£94	Encyclopaedia of Nature	£38
Claris Draw	£95	Ultimate Human Body	£38
Claris Impact	£95	World Reference Atlas	£43
Filemaker Pro 3	£159	P.B. Bears Birthday Party	£25
Microsoft Office	£359	Ultimate Doom	£Call
Microsoft Word	£245	The Dark Eye	£30
Microsoft Excel	£245	Rebel Assault II	£35
M.Y.O.B. Accounts	£149	Doom II	£32
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NEW SoftWindows 3.0 - CD/3.5"	£229	F/A - 18 Hornet V2	£45
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Conflict Catcher	£52	Marathon II	£40
VIREX - Anti Virus	£59	Dark Forces	£35
SAM	£54	A-10 Attack	£38
SAM (Inc. Updates for 1Year)	£109	Dungeon Master II	£28
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Speed Doubler	£38	Descent II	£30
RAM & SPEED Doubler PACK	£54	A10 Mission Disk (Cuba)	£29
Clip Master Pro	£13	Eleventh Hour	£Call
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Maths Workshop	£28	LOTS MORE SOFTWARE	Call GH
Fine Artist	£24		

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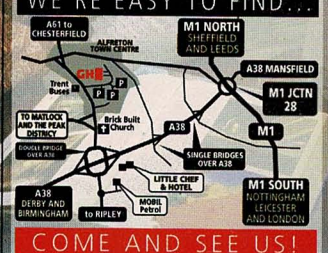

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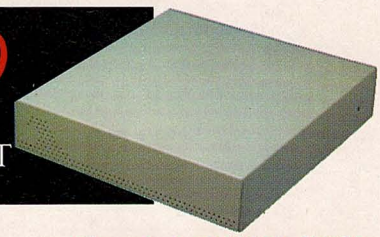

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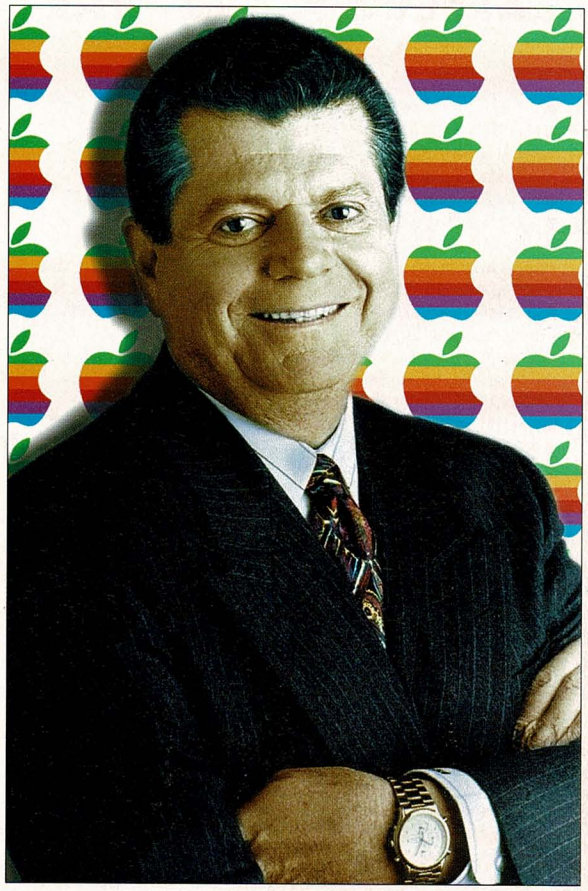
Apple bursts out with new ideas for the Mac and the Internet; IBM joins in. By Richard Hill and Simon Forrester.

Apple revival starts here



Gil Amelio wants Apple to harness its creativity by adopting a more businesslike attitude.

The reinvigorated Apple is taking a fresh new approach to the Mac and what it can do. New ideas and plans announced by Apple head Gil Amelio make the Internet and multimedia even more a vital part of the Mac. Apple is also to simplify the Mac range and make a reliable, flexible Operating System a priority as it turns the corner after recent financial troubles.

Three months after joining the firm, Amelio's most coherent blueprint for his Apple revolution was unveiled at the WorldWide Developers Conference in San Jose. It was a get-together for the programmers and companies that create the software you use every day, and a chance for Apple to help them plan for the future of the Mac.

Amelio opened the conference with a speech outlining the changes he's making, many of which are designed to get Apple reacting more quickly to changes in the market and shaping its own destiny again. The Internet is going to play a vital part in Apple's plans: see the 'Internet crucial to Apple success' story on page 24 for details. The outline he offered was fleshed out in succeeding speeches from Apple staff.

Rebuilding the Mac

Apple's top priority is the Mac OS (Operating System), the software that controls all Macs. Apple will make the software run more smoothly and get rid of the minor OS variations you find on different models – one Mac OS to run on all Macs will be the rule.

The next version of the Mac OS now has its official name.

Copland, the next major revision of the Mac OS, now has its official name. After months of speculation whether Apple would be calling it System 8 or Mac OS 1.0, the firm has naturally plumped for Mac OS 8. It is still due for mid-1997, but Apple may bring you some of its features earlier in an intermediate update for System 7.5. By the end of the year, you could be able to change the look of your Mac Desktop and menus to suit each person who uses it, and find information easily with a powerful search tool called V-twin, which can examine reams of documents quickly.

Amelio's more direct approach is echoed in his plans for the Mac computer itself: the number of Mac motherboards – the basic designs of the chip set-ups within the computer case – will shortly be cut from nine to

Continued on next page

Apple TV goes live on the Internet

Portions of the Worldwide Developers Conference were broadcast live over the Internet using a system called QuickTime TV. Gil Amelio (pictured) gave the keynote speech that led the Apple charge.

five, and ultimately down to just two or three. The move will make it easier and cheaper to design and build Macs. Amelio also intends to halve the number of different Mac models customers can choose from. This isn't something that's going to affect your choice in the UK much: Apple UK has a more carefully planned range than its counterpart in the United States, where there are around 80 types of Macs to choose from, with sometimes only the slightest of differences within entire ranges. But it will make life easier for the parent company and some confused customers.

This simplification of the Mac range and its OS will also make the Mac more attractive to potential licensees – companies thinking about building and selling their own Mac-compatible computers. It also means that no matter which firm you buy your next Mac from – Apple or otherwise – you can feel sure that it will run your programs reliably, without the clashes between hardware and software that still plague the IBM-compatible PC 15 years after its introduction.

Other plans for the Mac include a minimum of 12Mb of RAM in all new models from now on. Apple and IBM are to collaborate on a portable Mac, while Apple also plans a state-of-the-art, limited edition Mac to mark its 20th anniversary last April. Firewire, a high-speed connection system created by Apple, is to be fitted to Macs from 1997 – at first as a PCI card, then as a built-in socket like the existing SCSI port. This will enable you to plug in video recorders or cameras, for example, and transfer video at 16Mb a second, compared to SCSI's 5Mb a second. You'll also be able to plug a wider variety of electronic devices straight into your Mac as easily as you fit on an extra hard drive today.

Apple moves

Let's not forget that the reason Gil Amelio is now in charge of Apple is because of the financial and planning woes the company's been suffering. His task is to get Apple making money again after losing $800 million in six months, chiefly through an inability to compete in the ferocious world computer market – despite having the best machine you can buy and selling more Macs each year.

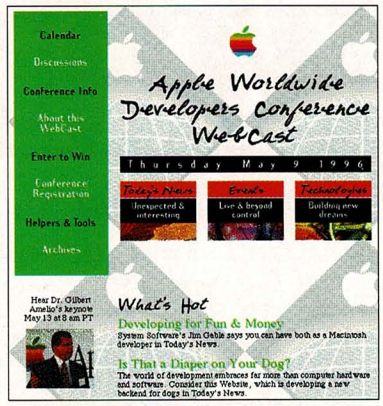
Gil Amelio now plans to realign Apple into eight separate divisions, and will give each a specific remit to become the best in its own field. While they'll continue to cooperate, each part will have to justify its own existence and make a profit. The Macintosh division leads a roster including AppleSoft, AppleNet, Alternative Platforms, Imaging, Information Appliances, Apple Assist and the Advanced Technology Group. With the exception of Apple Assist, a revamped customer service and technical support outlet, none of this should make any difference to how you deal with Apple – it's all about creating a healthier company behind the scenes. Amelio told the *San Jose Mercury News* that he wanted Apple to be as strong as the best companies in the computer industry. 'When I get there, you can properly declare it's fixed,' he said. 'That's probably three years [from now].'

Apple's plans – the key points

- Reliability of Mac OS is main goal
- Will only be one version of OS, and it is to work on any Mac
- Mac OS 8 ready for 1997
- Some Mac OS 8 features to be pulled into System 7.5 update
- New Macs to have minimum of 12Mb RAM
- Fewer Mac designs to mean cheaper, more stable machines
- Apple and IBM to collaborate on portable Mac
- Firewire connections a standard feature on Macs by 1998
- Macs to be made ready to use Net instantly – many will include modem
- QuickTime Media Layer for Net – OpenDoc, Java, HTML, PDF
- Java to be worked into Mac OS, OpenDoc, *Cyberdog*, *HyperCard*, Newton, Pippin
- *Cyberdog 1.0* out now – free
- *Shockwave* and *Acrobat* coming to *Cyberdog*
- OpenDoc version of *Netscape Navigator*
- OpenDoc gets *KickStart* – video, virtual reality and 3D
- Speech recognition plug-in for *Navigator*
- Bandai's @World Player (based on Pippin) on sale in September in US
- Apple to sell its own version of Pippin
- Newton's Internet capabilities to be improved
- *Cocoa* – multimedia authoring for kids
- Apple reorganisation breaks firm into eight divisions, each with its own specific aim:

1. **Macintosh** to design and make great Macs
2. **AppleSoft** to develop Mac OS and spread it far and wide through licensing
3. **AppleNet** to make the most of the Internet throughout Apple products
4. **Imaging:** strong printer, scanner and camera support to continue
5. **Information Appliances** to develop Pippin and Newton
6. **Alternative Platforms** to make Mac work better with other types of computer
7. **Apple Assist** to increase quality of customer service, bring catalogues onto the Net
8. **Advanced Technology** Group to create cutting-edge projects

- Amelio's aim: Apple to break even in 12 months, become stronger than ever in three years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This year's WorldWide Developers Conference was the launch pad for a succession of Apple announcements and initiatives.

IBM joins Mac team

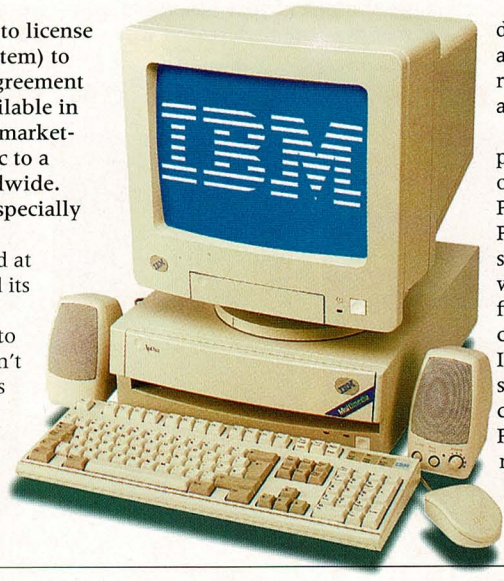
IBM has agreed with Apple to license the Mac OS (Operating System) to other manufacturers. The agreement means that the Mac will be available in many more forms, opening the marketplace up and delivering the Mac to a wider range of customers worldwide. IBM's clout in the industry is especially important to achieve this.

Two licensees were announced at the same time that IBM revealed its deal: Taiwanese firms Datatech (DTK) and Tatung are the latest to join the Mac OS roster. IBM hasn't announced any plans to make its own machines yet, other than the portable Mac to which Apple chief Gil Amelio referred (see our main story).

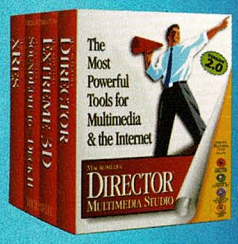
Companies who want to use the Mac OS will be able to deal directly with IBM rather than Apple, although the latter will still be responsible for quality control before any computers go on sale.

The licensing agreement will also place the Mac format high on the list of operating systems for the PowerPC Platform, expected later this year. The PowerPC Platform is a computer specification enabling machines to run with a variety of operating systems – finally producing the cross-breed, all-compatible system both Apple and IBM have been working towards for several years now. An explosion of companies joining the PowerPC Platform movement is anticipated, meaning millions more people will have the chance to use the Mac OS.

Two giants of the computer scene unite to spread the Mac OS as far as possible.



Well-known for its consumer PCs (left), IBM may now launch its own Mac-compatibles.



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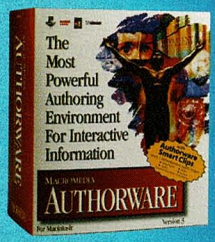

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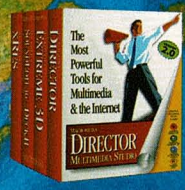

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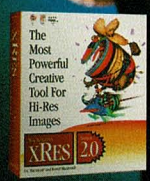

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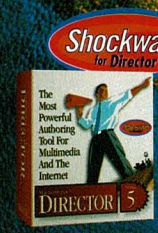

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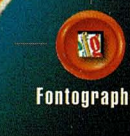

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Internet crucial to Apple success

CONFUSED?

As the Internet grows ever more important, we've put together a guide to the different areas of the Net and how you can make the most of them. It all starts on page 38.

The Mac is to be more closely integrated with the Internet as part of Apple's new direction. The company's head Gil Amelio announced at the recent WorldWide Developers Conference a flood of moves to make the Net easier to use on your Mac, and plans that will make using the Net an everyday part of your work, education or leisure activities. During his opening speech, Amelio said of the Internet: 'We don't want you to have to log on, we want it to just be there.'

By the end of the year, all new Macs will include the *Apple Internet Connection Kit* and many will also come with a built-in modem. The idea is that all you'll need to do is pick an Internet service provider and you'll be away.

The Net figures heavily in Apple's plans for its software and OS. With the World Wide Web fast becoming a carrier for all types of digital media – from type and images to video and 3D – Apple is proposing that a core set of technologies will form the heart of the new Web, and intends to give these systems its full support, making them work better with the Mac OS.

This QuickTime Media Layer consists of: the HTML code used to create Web pages; Sun Microsystems' Java programming language for the Net; Adobe's type technologies like the Portable Document Format found in *Acrobat;* and Silicon Graphics' Virtual Reality Modelling Language, which is intended to give you 3D environments you can explore through the Web (Apple and Silicon Graphics are collaborating on the next version). These systems will work with Apple's QuickTime video and virtual reality software through OpenDoc, Apple's new component technology.

OpenDoc is important to this plan because it's ideal for making these disparate technologies work together. As an example of this, Apple has released *Cyberdog,* a free, easy-to-use Net program that employs OpenDoc. Click on *Cyberdog's* icon to open the Starting Point, a box containing shortcuts to the World Wide Web and other popular areas of the Net. You can switch between areas easily and store favourite places in your *Cyberdog* Notebook.

Each of the *Cyberdog* pieces you use is actually an OpenDoc document, which means you can place it inside other similar documents – so you can drop a Web browser inside a letter you're writing on an OpenDoc word processor, for example.

WHAT IS HTML?

HyperText Markup Language is a set of instructions and style codes which your Web browser interprets to produce text and insert images for each page.

An open Net

Cyberdog is a simple example of how to combine the Internet with the rest of your Mac activities using OpenDoc. Look out for OpenDoc components that use the technologies intended to become the QuickTime Media Layer; and Macromedia's *Shockwave* multimedia player will also be converted to work with OpenDoc.

The biggest sign that the idea could take off was an announcement from Netscape that the firm's *Navigator* Web browser would be released in an OpenDoc version. IBM has also renewed its commitment to get OpenDoc working on the *Windows* operating system, which should see Open Doc become more widespread.

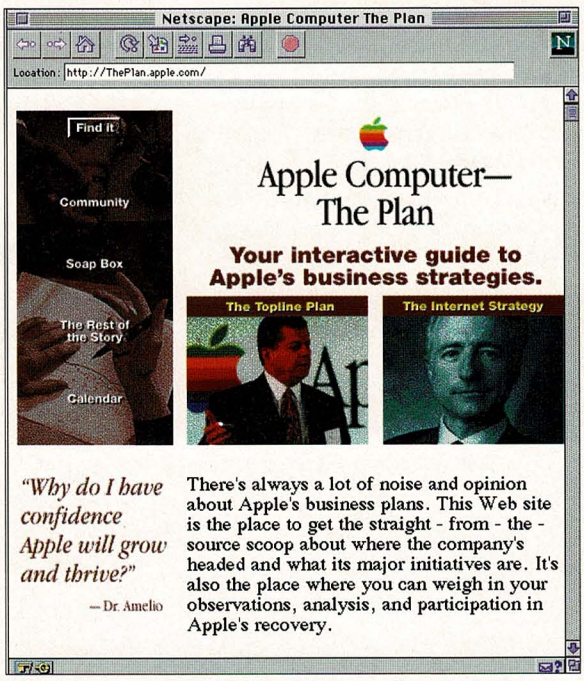
OpenDoc received a further boost with the news that Apple is working on KickStart, a suite of components that offer to the new system the basic Mac tools you use every day. KickStart will include an OpenDoc word processor, a drawing tool, and viewers for QuickTime, QuickTime VR, QuickDraw 3D and the most popular image file types (PIC, TIF, GIF and JPG). Publishers who create OpenDoc components will be free to offer any or all of these tools to you as part of their package. As new technologies become available, Apple will create OpenDoc parts that enable them to work with all your existing OpenDoc tools.

Net devices

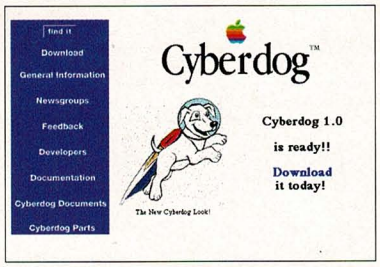
Apple wants to make the most of this coherence for the Net by making it available to as many people as possible. The new Information Appliances division of Apple is responsible for 'things that cost less than $1,000,' as Amelio put it. This basically covers the Newton handheld computer and the Pippin Internet and multimedia player, which you can plug into your TV.

Pippin is an Apple design based on the PowerMac. Bandai's version of it went on sale in Japan in March – Amelio claimed 16,000 were snapped up in its first week alone – and will be available in the United States from September. There's still no word of a European launch, but the American version should give some indications of what you can expect. It will be called the @World Player (@ is a symbol used in e-mail addresses) and will cost $599 (£400). American buyers will find a device with 6Mb of RAM, a CD-ROM drive, a built-in modem, a joypad controller and, vitally, a keyboard. They'll also get some free CD-ROMs including *TV Works,* a *ClarisWorks*-style integrated program featuring a word processor, painting program and e-mail service.

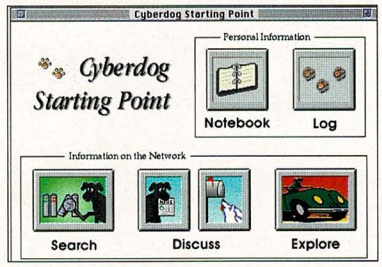
Continued on page 26


Netscape: Apple Computer The Plan
Location: http://ThePlan.apple.com/
Find it
Community
Soap Box
The Rest of the Story
Calendar
Apple Computer—The Plan
Your interactive guide to Apple's business strategies.
The Topline Plan
The Internet Strategy
"Why do I have confidence Apple will grow and thrive?"
—Dr. Amelio
There's always a lot of noise and opinion about Apple's business plans. This Web site is the place to get the straight - from - the - source scoop about where the company's headed and what its major initiatives are. It's also the place where you can weigh in your observations, analysis, and participation in Apple's recovery.

Gil Amelio has ordered a charm offensive detailing Apple's plans for its restructuring – you can read all about it on the Web.

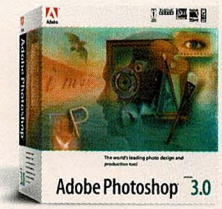


Cyberdog is an innovative new way for you to use the Net as part of your usual work – and it's free from the Web.



Cyberdog's 'Starting Point' can take you onto the World Wide Web, the newsgroup area or into your e-mail directory within seconds.

GET A GRIP *on reality*



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Finally, Bandai will offer customers an Internet connection for an extra charge, providing a CD-ROM of Net software including *Netscape Navigator.*

Apple is also to sell its own version of Pippin, although it's not saying what it will be called or when it will appear. Both Apple's and Bandai's Pippin devices will enable you to use the QuickTime Media Layer set of technologies as you browse the Web. And already details are emerging of what you might call Pippin 2, the next version of the Pippin design, due in 1997. This will feature the new Digital Video Disc player that can play movies stored on a single CD, and Firewire high-speed connections.

Newton's importance is continuing to grow as the value of being able to use it for easy on-the-road communication becomes appreciated. Apple is developing software to make it easier for programmers to write Internet software for the device, enabling you to connect to e-mail or the Web with your Newton MessagePad and a portable phone.

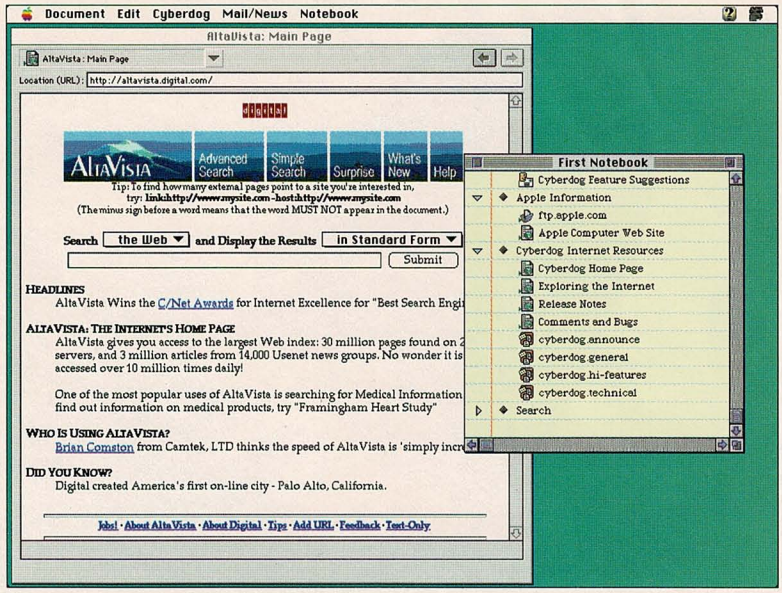
WHAT'S YOUR VIEW?

Gil Amelio has introduced a lot of changes for the company that brought you the Mac, but are they changes for the better? What else should he do? Let us know your view by writing to: Apple Talk, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

Web tools

A varied set of tools for creating multimedia for the Net or CD-ROM were also announced. *Cocoa* will be a tool for designing distinctive Web pages, and it's so easy to learn that a child could use it. In fact, children are Apple's intended market for it. You can build simulations and games within *Cocoa*, which it then turns into Web pages you can place on the Internet. The pages can include animation and sound, so in some respects *Cocoa* could be called a junior version of *Shockwave*, a Net multimedia system designed to be used by technically-adept adults. A free plug-in you'll be able to download from the Web will enable anyone to view *Cocoa* pages in *Netscape Navigator.*

Navigator is also to receive plug-ins that enable you to control your journey through the Web by speech. Apple's PlainTalk system, which enables your Mac to respond to spoken commands or convert text into speech, will work together with the Web browser so you can go straight to your favourite page with a single spoken command, for example. It will also enable *Navigator* to speak the text of a page, and it's even possible that you might be able to have a conversation with a Web site. Going to a page would trigger a line of speech, and your Mac would go to one of several pages depending on how you responded to it.



With Apple's new *Cyberdog* suite of OpenDoc components, you can build up a list of favourite pages all across the Net and incorporate these into other documents.

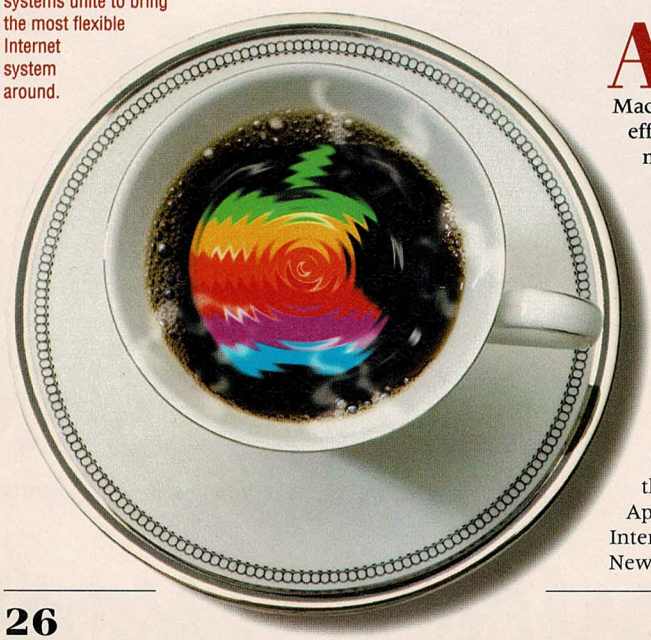
FURTHER INFORMATION

Apple also intends to use the Web to spread the word on its future plans and create a stronger Mac community on the Net. Take a look at these Web pages to begin:

The Plan	http://ThePlan.apple.com/
The Gil Amelio Home Page	http://www.apple.com/leadership/
Mac OS 8	http://www.macos.apple.com/macos8/
Cyberdog	http://cyberdog.apple.com/

Java adds to Mac component choice

Two innovative systems unite to bring the most flexible Internet system around.



Apple will be integrating the Java Internet system into the Mac OS to strengthen the Mac's ability to use the Internet efficiently. The unexpected move means that, like those in the rest of the computer industry, its machines will now be capable of running the Java standard, which is catching on quickly.

Java is a complex but powerful programming language specifically designed for creating applets – small programs that you can load from the Net. The programmer only needs to write his project in Java to have it work on any computer that recognises the technology.

Apple intends to make the Java Internet system a part of its Mac and Newton operating systems; look out for Java facilities in the Internet suite *Cyberdog* and the multimedia program *HyperCard*, for example.

In basic terms, Java works in a similar way to Apple's component system OpenDoc. Different Java applets can co-operate with each other, so you could use a Java word processor and add in an animation applet to give a visual representation of your main point.

Although Java won't necessarily offer you any advantages over OpenDoc, it is something the whole of the computer industry seems likely to adopt, so you won't miss out on some exciting Internet developments. And Apple sees a great deal of potential in OpenDoc parts and Java applets working together, giving you a wider choice of component software than owners of any other computer. **MF**

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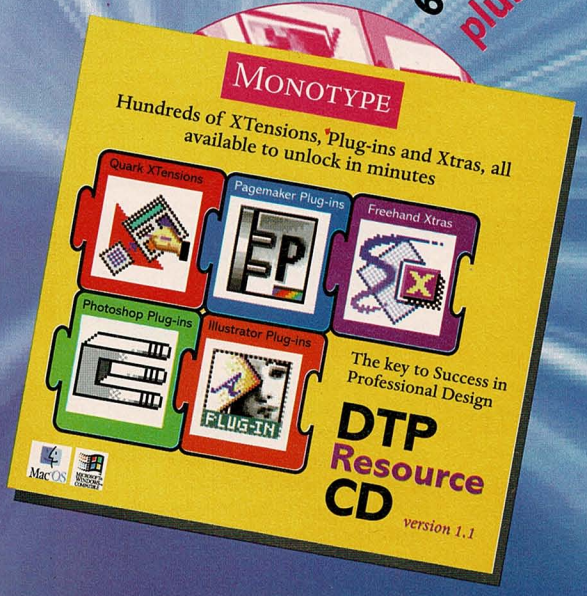

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Mac OS

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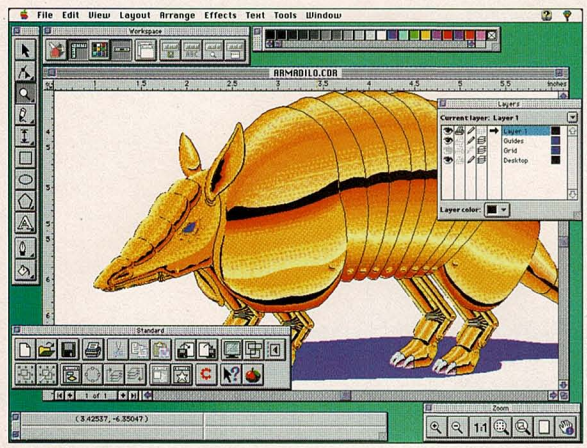
WHAT'S NEW

A well-established art package finally arrives on the Mac; Apple announces still more new Performas and Samsung some new monitors. Keeping an eye on developments is Simon Forrester.

CorelDraw 6



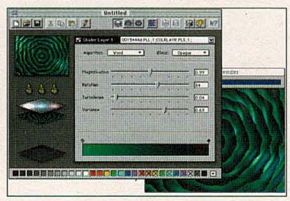
Corel Draw 6 also includes *Corel Dream 3D*, *Corel Texture* and *Corel Artisan*.

For many years now, PC users have been enjoying the market leading art package *CorelDraw* exclusively. But with the advent of the PowerMac comes *CorelDraw 6*, the first in what, with luck, will be a long line of crossover releases. The package is much more than its title would suggest: far from being simply an art package, the box of tricks also includes *Corel Dream 3D* for modelling and rendering 3D environments; *Corel Texture* for texture generation; and *Corel Artisan* for the kind of image creation and manipulation that you expect from *Adobe Photoshop*.

CorelDraw itself is probably one of the most powerful art packages you can get. Its standard drawing tools, which include polygons, freehand nibs, knives and erasers, are only the beginning of this package's useful features. It is capable – should you need it – of dealing with images up to 150 feet square. It can fill your images with automatically wrapped and justified text, and comes with over 800 label templates. Add a range of special effects to deal with image trimming, welding and intersecting, and *CorelDraw* is starting to sound like a must for every serious Mac artist.

Rendering package *Corel Dream 3D* is based on the well-known *Ray Dream Designer* and it enables you to create 3D models freehand, by choosing basic, predefined 3D shapes or by using a step-by-step guide. Alternatively, you can pick and choose from any of the 750 models provided. These models can then be textured with bitmap images, reflective surfaces, and varying degrees of transparency. Once you've designed and textured your scenes, you can arrange various lighting effects, from spotlights and bulbs to distant or ambient light sources.

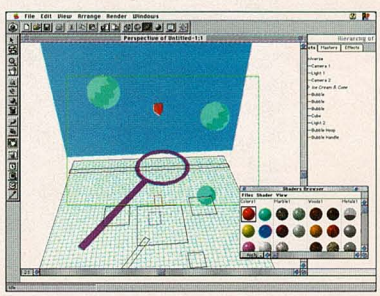
It might at first be hard to see exactly where a specialist texture editing application could find its use in such a collection of software, but *Corel Texture* will take care of the patterns you use elsewhere in the bundle. It enables you to generate textures using either the freeform tools, adding bevels, grains, and colour mixes in up to seven interacting layers; or working from any of the 100 templates to create realistic wood, fabric, liquid, stone and metal textures easily. As with *Draw* and *Dream*, *Texture* offers a guide to make the process easier for you if you're a beginner.



Corel Texture enables you generate textures using the freeform tools, or from any of the 100 templates.

The final segment of the package will be the real selling point for *Corel* as far as the Mac market is concerned. So reminiscent of *Photoshop* in power and application that it even supports Adobe's plug-in filters, *Artisan* comes with a full complement of bitmap painting and image editing tools. It works with any of the main colour printing systems and the emphasis is firmly placed on creative art – it simulates artistic brush effects and also enables you to take control over the finer points of brush wetness and paint drying techniques.

The whole bundle comes with other utilities that give you the power to organise your fonts, deal with bitmap-to-vector tracing and undertake multimedia editing and spreadsheet graphics, as well as providing compatibility with the PC versions of *CorelDraw*. Obviously all this power comes at a price and you'll need a powerful, expensive Mac to make the most of *CorelDraw*. The mere cost of the software is likely to be less painful! Watch for a review in MACFORMAT soon.



Corel Dream 3D enables you to create 3D models freehand. It also offers an easy-to-follow guide.

■ Price: expected to be around £450. ■ Out: end of June. ■ Requires: PowerMac, 16Mb of RAM, System 7.5 or later, 105Mb of storage space for full installation, 13-inch, 256-colour monitor, CD-ROM drive.

MORE 3D

We looked in detail at new 3D software in MACFORMAT 34; if you missed that issue, turn to page 119. For information on some of the latest 3D illustration packages available, see our head-to-head review of *Ray Dream Designer* vs *Extreme 3D*, starting on page 94 of this issue.

Latest Performas

Determined to put an affordable PowerMac in every home, Apple has just released two new additions to the Performa family – the 5320 and the 6320. Costing £1,699, the 5320 is modelled on the all-in-one design of the 5200, while its sibling, priced at £1,649, uses the more traditional modular design.

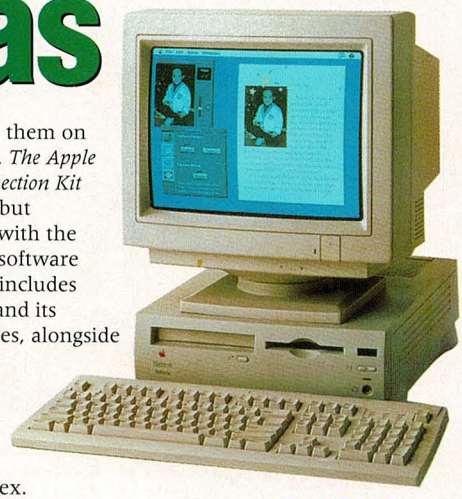
Both machines boast 8Mb of RAM and a 1.2Gb hard drive, and are based on a 120MHz 603e PowerPC processor. Both also feature the now standard quad-speed CD-ROM drive, as well as having ample space for a 28,800bps internal modem. One configuration of the 5320 also has a TV/MPEG board, enabling you to use it to watch TV and take images from other video input sources, as well as taking advantage of teletext facilities like Ceefax.

Bundled with the new machines is a range of software including *ClarisWorks* and 11 CD-ROM titles. You'll find the exclusive *Apple Magic Collection* – Disney Interactive products that include *The Lion King Story Book, Aladdin Activity Centre* and the *Toy Story* film trailer on CD – among them. Other titles include Grolier's *Multimedia Encyclopedia, Making Music* and *Millie's Math House*, as well as *Myst*.

Keen to get the whole family involved with computing, Apple also wants to see them on the Internet. *The Apple Internet Connection Kit* makes its debut appearance with the range. It's a software bundle that includes *Netscape 2.0* and its helper utilities, alongside an Internet connection with the popular service provider Pipex.

To accompany the newest additions to the Performa range, Apple has dropped the prices of existing Performas by up to 21%. Many of the range come with the Apple MPEG Media System, providing full multimedia for the home, while others are now bundled with the *Apple Internet Connection Kit*.

One version of the 5320 has a TV/MPEG board, enabling you to watch television on your monitor.



Bundled with the new Macs is a range of software titles, including *ClarisWorks* and 11 CD-ROM titles.

■ **For more details, contact Apple on 0800 127753.**

AICK!

The *Apple Internet Connection Kit*, and alternatives to it, are assessed in our huge Internet feature, 'Where its @', starting on page 38 of this issue.

THE CURRENT PERFORMA RANGE

Model / chip clock speed	RAM	Hard drive	Modem	TV&MPEG	Price
5200/75	8Mb	800Mb	–	–	£1,099
6200/75	8Mb	800Mb	–	–	£1,099
5300/75	8Mb	1.2Gb	14.4	–	£1,499
6300/75	8Mb	1.2Gb	–	–	£1,499
6320/120 *(new model)*	8Mb	1.2Gb	–	–	£1,649
5320/120 *(new model)*	8Mb	1.2Gb	14.4	–	£1,699
5300/75	16Mb	1.2Gb	–	Yes	£2,299
5320/120 *(new model)*	16Mb	1.2Gb	28.8	Yes	£2,399

For details of Apple's current (non-Performa) PowerMac range, see News, MACFORMAT 38

NEW FOR THE MAC

Education price deal

In April this year, Apple and long-time education supporter Acorn launched a joint venture called Xemplar to promote the use of computers in UK schools. If you're a teacher or are responsible for purchasing computers for a school, you can now buy Macs at education prices, qualifying for the reductions whenever you buy directly from the *Summer '96 Products and Services* catalogue. Call Xemplar on 01223 724201 for more information.

Optra prices fall

Lexmark has reduced the prices of its Optra printers by up to 21% in a bid to secure its position as the value leader for network printing. The range of 16 ppm (page per minute) desktop lasers now starts with the Optra R+, a 1,200dpi (dots per inch) laser model priced at £1,444, and ends with the Optra Lxi+, a £2,808 model capable of dealing with 1,000 A4 sheets. The firm's 4039 10 Plus, a 10 ppm, 600dpi, 200 sheet input laser, now costs only £1,174. For more information you can contact Lexmark on 01628 481500.

Client logging

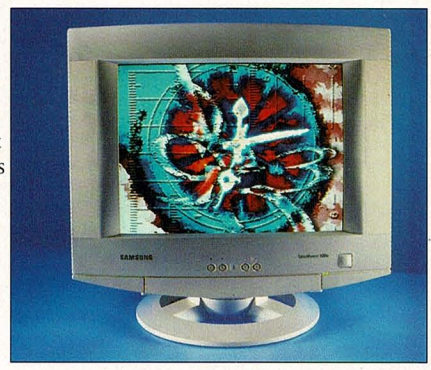
Hi Resolution's *WATCHIT!* is a logging and reporting system for keeping track of the many projects your firm may be working on at any one time, and accounting for the time spent working on each. Costing £117, the package sits invisibly in the background monitoring your Mac's activities, and then uses this data to produce a *FileMaker Pro* document, which it can also deliver to another Mac in your office. For more details contact Hi Resolution on 01892 891291.

New Samsung monitors

Following on from its successful GLi monitors, Samsung has just released the SyncMaster 15M and 15Me, both 15-inch screens. Priced at £342 and £311 respectively, they have been dubbed 'multimedia monitors' by the company. Both incorporate 1.5 watts-per-channel speakers and volume and mute controls, along with headphone and microphone facilities.

The visual display on the 15M uses flatter, squarer screen technology, which helps to achieve an increased viewing area of 13.8 inches, without a resulting loss of picture quality. A 15-inch monitor offers a greater resolution than the average screen. The 15M is capable of either 1,024 x 768 pixels or 1,280 x 1,024 pixels, at scan rates of 76Hz and 60Hz respectively – the higher the scan rate, the more stable the picture is. To further improve its display, the 15M makes use of Samsung's Ultra Clear coating, which avoids the additional cost and weight of an extra glass filter.

The 15Me is a cut-down version, aimed more specifically at the home user, which doesn't employ all the updated technology. But, with the estimated difference in price as little as £26, it's certainly worth considering buying the 15M.



Samsung's new SyncMaster 15M and 15Me monitors from follow on from the company's successful GLi monitors. The 15Me above is the more modest model, but it's still a beauty.

■ **Prices: SyncMaster 15M £342; SyncMaster 15Me £311.**
■ **Out: now.**
■ **Contact: Samsung on 0181 391 0168.**

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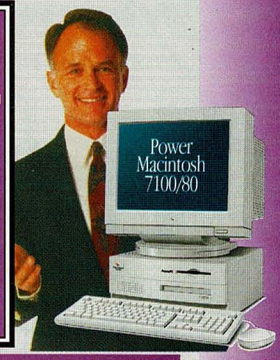

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HARD DRIVES

SIZE	INT	EXT
540MB	£119	£159
1.2GB	£189	£235
2.0GB	£479	£525
4.0GB	£719	£765
8.0GB	Call	Call
2.0GB AV	Call	Call
4.0GB AV	Call	Call

SYQUEST DRIVES

SIZE	DRIVE	CART
200MB Ext.	£299	£49
270MB Ext.	£259	£39
135MB Ext.	Call	Call

OPTICAL DRIVES

SIZE	DRIVE	CART
230MB Ext.	£345	£14
1.3 GB Ext.	£799	£49

CD WRITERS

Plasmon	£899
Includes Software & Cables	
Philips CDD522 x2	£Call
Richo RS1060 x2	£Call
Yamaha CDR100e x4	£Call

CD-ROM DRIVES

Apple CD 600e (Tray)	£289
NEC X4 (Tray)	£179
Panasonic X4 (Tray)	£169
Plextor X6 (caddy)	£329
Teac X6 (Tray)	£269

TAPE DRIVES

Exabyte 8MM DAT Drives	
7-14 GB Ext.	£1495
HP 4MM DAT Drives	
4.0 GB Ext.	£595
4-16 GB Ext.	£749
Sony 4MM DAT Drives	
4.0 GB Ext.	£629
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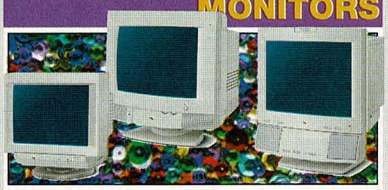
4MB 72 Pin SIMM	£39
8MB 72 Pin SIMM	£75
16MB 72 Pin SIMM	£139
32MB 72 Pin SIMM	£249
8MB DIMM	£99
16MB DIMM	£169
32MB DIMM	£299
64MB DIMM	£599

MONITORS MONITORS



Apple	
14" Apple Colour Display	£239
14" Apple Audio Vision Colour	£315
15" Apple Multiscan Display	£285
17" Apple Multiscan Display	£685
20" Apple Multiscan Display	£1259
Iiyama (IDEK)	
17" Iiyama VisionMaster 8617e	£519
17" Iiyama VisionMaster 9017e	£579
21" Iiyama VisionMaster 8221e	£1165
21" Iiyama VisionMaster 9021e	£1250

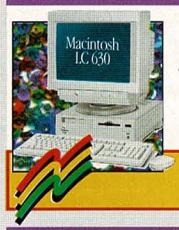
SCANNERS SCANNERS

AGFA StudioScan (Photo. Lite)	£468
AGFA StudioScan (Photo. Full)	£595
Apple Colour one Scanner	£Call
Canon IX-4015 (OFOTO S/Ware)	£599
Epson GTx 8500 (Photo. Lite)	£569
Epson GTi 8500 (Photo. Full)	£569
Epson GTx 9000 (Photo. Lite)	£779
Epson GTx 9000 (Photo. Full)	£849
UMAX Vista S6e (Photo. Lite)	£299
UMAX Vista S8 (Photo. Lite)	£539
UMAX Vista S8 (Photo. Lite)	£639

PRINTERS PRINTERS

Apple StyleWriter 1200 Mono	£197
Apple StylwWriter 2400 Colour	£329
Apple LaserWriter 4/600 PS	£585
Apple LaserWriter 360 600dpi	£989
Apple LaserWriter 16/600PS	£1579
Apple Colour LaserWriter	£4725
HP 320 Mono 600x300dpi	£179
HP 660 Colour 600x300dpi	£265
HP LaserJet 5MP 600dpi	£785
HP LaserJet 4MV A3 600dpi	£2139
Lexmark 4079 Plus A3 Colour	£2399
TI MicroWriter PS23	£Call
TI MicroWriter 600	£Call

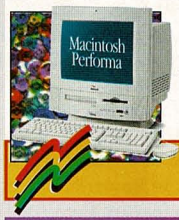
Performa 630+ 8/500/CD



Apple 15" Multiscan.. 8Mb Ram. 500Mb HardDrive. CD-ROM 300i+. AppleDesign K/Board. Mouse.
SoftWare Bundle..... 23 Titles including: - System7.5. At Ease. ClarisWorks 3.

£1059

Performa 5200/75 8/800/CD/Modem



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Software Bundle..... 23 Titles including: - System 7.5. At Ease. ClarisWorks 3.

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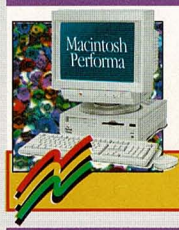

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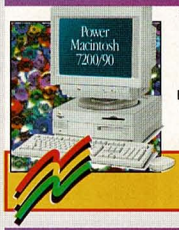

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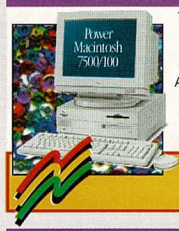

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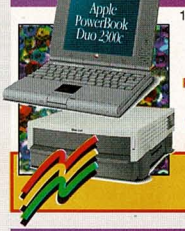

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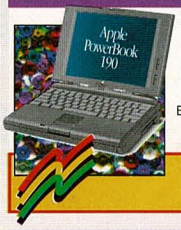

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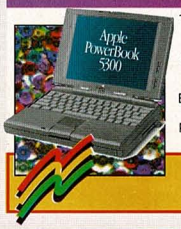

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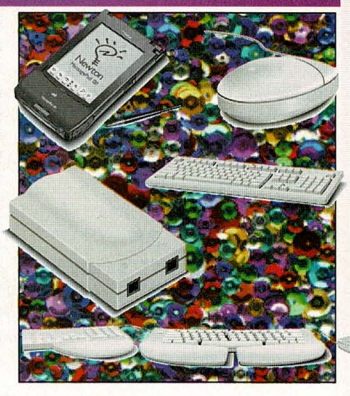

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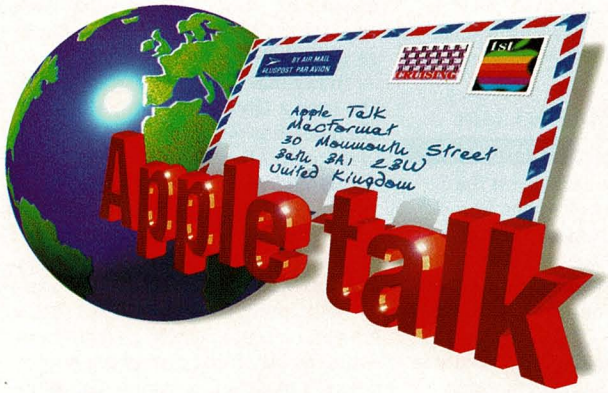


Tell the world what you think. Write to: Alex Summersby, Apple Talk, MACFORMAT, 30 Monmouth St, Bath BA1 2BW.

Weighty thoughts? Write to MACFORMAT, get 'em off your chest *and* get a binder in return!

Wish list

SUGGESTIONS FOR SYSTEM 8

A few suggestions for the forthcoming System 8 or Copland:

For starters the new System should have way better memory and disk handling capability. It should be able to increase the memory allocation of a running application as long as there is free RAM available, rather than just present the warning that you have to increase it manually in the Finder's **Get Info** window.

As for the handling of disk drive space, System 7.5 allocates bigger blocks on larger drives. This results in big time drive space wasting. The same file on a floppy or on the 40Mb drive of my old Classic is much smaller than it is on my 540 meg internal, or on the 2 gig external of my 6100. An operating system able to compete nowadays must be able to cope with large volumes, and enable you to access what you have paid for. Although you could win back a little by partitioning, splitting a four gig disk into 40 meg parts is quite inefficient. To quote from the *File Buddy* help file: disk space is getting cheap, but not that cheap.

Also, it would be nice to see an Extensions manager that could recognise *all* Extensions and Control Panels (no, *Symbionts* and *Conflict Catcher* don't) and give you more info on memory usage.

Jaap Willem Back
The Netherlands, via FutureNet

Now that Apple has got as far as announcing the official name that the new System will have – 'Mac OS 8', as we report in this issue's News pages – better get those wish lists in before it's too late. Send your suggestions to 'Get it right this time' at the address on this page.

Games machine?

THE FUTURE FOR PIPPIN

Some time ago I noticed a letter in MACFORMAT saying that the Pippin is doomed, that it will die out because there won't be any good software to support it. When I was surfin' the Net the other day I found some interesting news that should make people happy. First, I found some *really* good games like *Mortal Kombat 3* and *NBA Jam Tournament Edition* are both out on the Mac in the States, courtesy of MacPlay, and should take advantage of the Pippin's controller and of the TV. When I searched more I found that *Hexen* and *Quake* will also be coming out on the Mac, and after the Pippin takes off it should get more games from other companies. So I think the Pippin will last,and probably sell well.

Jonathan Bell
Australia, via FutureNet

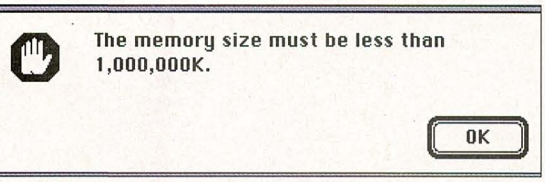
It may well, but it won't necessarily have any of the games you mention. In a nutshell, it is a less powerful machine than the Mac, which these were designed to run on. Developers need to write products specifically for Pippin – with its limitations in mind – with the added bonus that their programs will then run on a Mac too.

Un-American activities

ANTI-AMERICAN BIAS?

Just a quick note re Stanley Wertheim's complaint about your 'anti-American bias' in MACFORMAT 36. As good as American encyclopedia CD-ROMs might be, they do reflect what Americans want; there is a tendency to think that what Americans want, we all want. Living in Canada I want to read about our politicians and our own history and our own perspectives on things. Hence, I definitely want to

Continued on next page



Silly Things Your Mac Says, number 433, from George Silcock in Stockholm, who says, 'Just think, one day all our applications will need this kind of memory!' I reckon some of mine already think they do...

THE BURDEN OF SUCCESS

Look, sorry about this, but every letter and postcard published on these pages wins a MACFORMAT binder. It's just something you'll have to accept, I'm afraid. And no leaving your street address off your e-mail either – that's the coward's way out. In fact, if you were really brave, you'd bite the bullet, turn to page 119 and order one of your own. It must be tough at the top...

THE (STILL-GROWING) GREAT 'PORN' DEBATE

In MACFORMAT 32, reader Tony Wighton protested at the 'porn' on our Cover CD in the form of a text-based strip-poker game called Strip-Mac. *We invited responses, and they continue to arrive...*

I write in support of free speech, and against those who would take it away from us all by proffering ignorant and misleading comments designed to prey on fears rather than reason.

I am a Christian. Many calling themselves Christians have throughout many centuries done more to harm society than anything as trivial as *Strip-Mac.*

If the fantastic claims of Dr Hardy [MACFORMAT 35] are to be taken seriously then most of the population of the UK are doomed to wretched lives filled with medical problems, delinquency and depression. The church's view concerning sex before marriage is archaic and fails to see the hypocrisy in saying that a Christian couple can have sex with contraception and it is 'a gift from God', while everyone else is simply adding to their sins by having sex with contraception outside of marriage, however sincere they are.

I went to a Christian conference on the Internet last November and was horrified how the response to anything controversial was 'ban it' or 'censor it'. If you ban anything it becomes criminal and goes underground – compare drugs – and it does not stop demand. (A paedophile will seek and find material with or without the Internet.) Education is the key to changing people, not control.

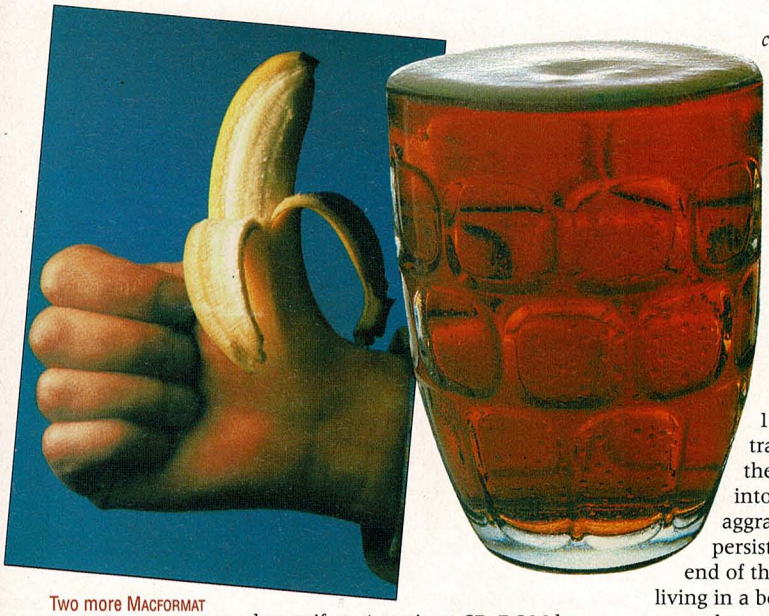
I did not notice the *Strip-Mac* program until the 'uproar' and frankly it concerns me more that these 'Christians' were so quick to spot it. Any self-respecting psychoanalyst would draw the same conclusion as I: they have a problem. What's the betting they also ran the demo? (Oh no, gambling! Another taboo!)

Dr Hardy, Kim Traynor and S Roberts are control-heads (and actually, Kim, from my experience of numerous Christians, they are mainly weirdos and their points of view are often far from Christian). If you are worried, then educate yourselves and your children about your perceived dangers, and stop trying to take the moral high ground; there is no moral high ground for Christians – Jesus did not condemn or admonish the prostitute or the Samaritan woman, and spent more time criticising meaningless religious tradition and hypocritical moralising, so go on and follow His example.

Down with the Safety Nazis. Long live freedom of choice – the real issue here.

James Quartley
via FutureNet

Only room for one letter this time round, but this is representative of the vast majority of the views we've received over the past month. Any further comments?



Two more MACFORMAT binder winners. Above right: we may not know about art, but we liked this postcard from David Hodgson of London SW16... And on the left, we may not know about fruit, but we thought this was a deft piece of image manipulation, sent in by Tim Priesterbach of Oldenzaal in Holland. Remember, whenever you write to MACFORMAT or enter one of our competitions, an eye-catching postcard could win you a binder too!

know if an American CD-ROM has things in it which I, an un-American, might be interested in reading.

'QueensGrad'
via FutureNet

And another thing...

Who's biased really?

ANTI-AMERICAN BIAS?

I fully agree with your reviewers who mention or complain about the American bias in reference software. Nobody should object to foreign bias if a disk is clearly a foreign product but in some cases the software is marketed as 'British version' or with some such label and yet turns out to have as much British flavour as a book by Mark Twain.

I recently bought a copy of *Encarta 96* which is labelled 'non-USA' on the box but the only concession to this label seems to be the return address to Cirencester, UK, on the registration card, and a sales number in the UK for other products. According to the manual supplied with the CD-ROM, the content of *Encarta* is based wholly on US reference books. The style and spelling are certainly not 'non-USA'.

Brian Read
via FutureNet

Any more views? Should we continue to call attention to US-based (or US-biased?) content in our reviews?

Memory lane

MAC MEMORIES

In your article on the history of Apple [MACFORMAT 37] you asked for reminiscences or life-changing experiences involving the Mac. How's this...

When I left university in 1987 I had an extremely traumatic break-up with my then-girlfriend, and went into a decline which, aggravated by drink and drugs, persisted for six years. At the end of that time I was on the dole, living in a bedsit, and supporting several very nasty habits. In a bid to kick-start my life again I signed off and went to one of these training factories – which was a pile of crap, but through it I did hear a whisper of a placement available in a community print workshop in Brixton.

The workshop did fliers, posters, party invites – pretty much anything, on Apple Macs, running *Quark*. I can't even remember what machines the Macs were, or what version of *Quark* they were running (but it was *old*), but the machines themselves were an absolute revelation. I had an old Atari at home, which I used for word processing, but DTP was like magic. Within six weeks I had managed to blag a work trial at the BBC (telling them I had six months experience with *Quark* instead of the truth), got some freelance work, then went on contract...

Three years later, I am a freelance *Quark* sub-editor working on newspapers and magazines who, last year, earned just over £17K for a three-week month. I live in a rented one-bedroom flat, have a regular girlfriend, a manic social life and am – quite literally – leading a life that three years ago I could only dream about.I am slowly learning other packages (at the moment I'm full of admiration for the writers of *Photoshop*).

To say that discovering Macs saved me from a fate considerably worse than death is not, I think, an overstatement. All my life I've looked for something which I enjoy, which I'm good at and which is well-paid; and I've found it. The last three years have been one hell of a trip (as opposed to the six before them, which were a trip to hell), and it doesn't look like letting up yet. I am not usually given to hero-worship, but in the case of the two Steves I make an exception. Gratitude, if nothing else.

Name and address supplied

Send your Apple anecdotes, your fondest Mac memories or your dramatic experiences to 'Memory Lane', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

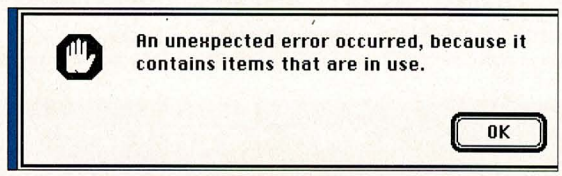
The pursuit of excellence

AND FINALLY...

We all know how dedicated MACFORMAT is to the pursuit of excellence, but hey, you've already given us the world's best Cover CD – there's no need to attach it to the magazine with the world's most persistent sticky tape as well. Just how do you get this gunk off? Is there a little app in the shareware folder that will do the trick? Or has some well-meaning soul decided it would do us good to get away from our computers for a while and focus on some serious CD jewel case de-gumming instead?

Stan Anson
Australia, via FutureNet

Sorry. We'll look into tape that doesn't stick at all, specially for you. Mind you, your Cover CDs might not still be in place by the time your copy reaches Australia... **MF**



Now this is one confused Mac! This little gem arrived on disk from Dennis Day of Brighton. If your Mac has given you a silly message, capture it by hitting **[command] [shift] 3** and send it in to us by e-mail, or on disk to 'Silly Things Your Mac Says' at the address on page 31.

HOW TO GET IN TOUCH WITH MACFORMAT

■ Our address for letters is on the previous page – the shorter your letter, the better its chances of being printed. Longer letters may appear in our regular 'Talking Point' section (page 128 this issue). If you'd like a letter included in 'Readers' Corner' on our CD-ROM, make sure it contains no defamation or obscenity, then send it in as a *TeachText* document on a disk marked 'MACFORMAT Readers' Corner'. Include your name and address, and note that we can't return your disk.

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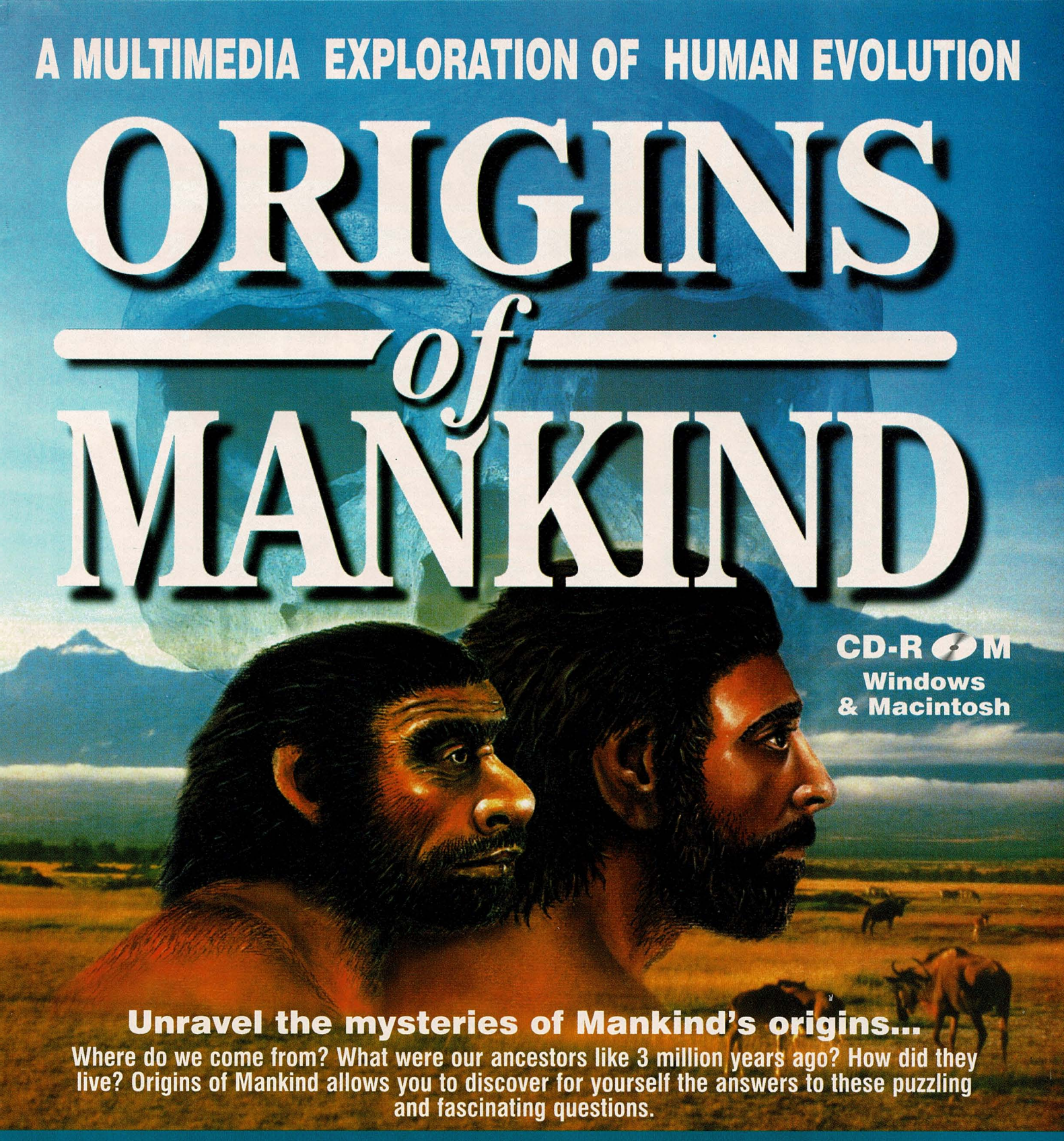

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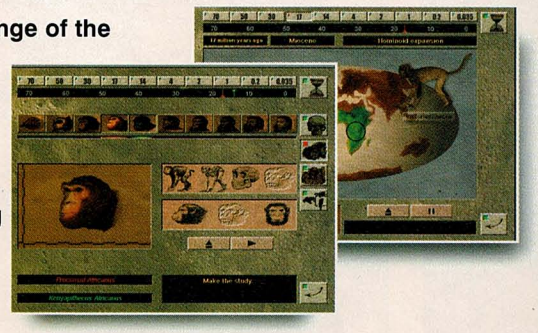

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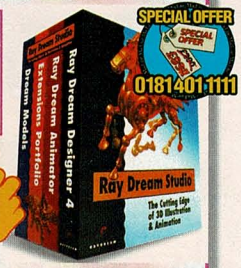

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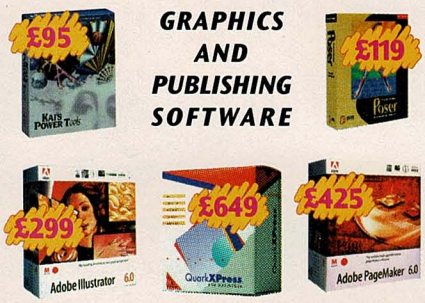

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KPTK	**Kai's Power Tools 3.0** (amazing filters for Photoshop)	£95.00
KPTV	**KPT Vector Effects** (Illustrator/FreeHand FX Plug-Ins)	£95.00
KPTC	**KPT Convolver** (adds power and ease to Photoshop)	£95.00
KPTD	**KPT Bryce 2.0** (3D Skies and landscapes)	£145.00
MCAD	**MiniCad 6.0** (native professional 3D design & analysis)	£495.00
RYDS	**Ray Dream Studio** (3D design, modelling, animation)	£249.00
PHSP	**PhotoShop 3.0** (special offer price - while stocks last!)	£349.00
PNTR	**Painter 4.0** (the premiere painting program)	£285.00
STRV	**StrataVision 3D 4.0** (modelling, rendering, animation)	£159.00
XRES	**xRes** (high resolution image editing and retouching)	£449.00

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ATM	**ATM 3.8** (smooths screen and print fonts)	£39.00
CAI0	**Click Art** (25000 clip art images)	£39.00
CBxx	**Corel Images** (25 CDs of quality photographs)	£110.00
CBGB	**Corel Gallery II** (15000 clip art images)	£49.00
FNTG	**Fontographer 4.1** (best professional font creator)	£299.00
PMKR	**PageMaker 6.0** (power and ease of use)	£425.00
QKXZ	**Quark Xpress 3.32** (the professional's choice)	£665.00.00
QK	**Quark Xtensions** (we carry a wide range)	please call
TYSL	**TypeStyler** (manipulates PostScript fonts)	£99.00

PRINTERS

ECS1	**Epson Stylus Colour II** (brilliant quality colour inkjet)	£295.00
ECSH	**Epson Stylus XL A3** (A3 colour inkjet, non PostScript)	£895.00
HP34	**HP DeskJet 340** (portable colour inkjet)	£225.00
HP60	**HP DeskWriter 600** (superb new inkjet, Appletalk)	£219.00
HP66	**HP DeskWriter 660c** (colour and mono in one)	£289.00
HP85	**HP DeskJet 850c** (higher speed, 600dpi mono, 300 clr)	£375.00
PWPR	**PowerPrint** (driver and cable for non-Apple printers)	£79.00

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M17E	**Apple 17" 1705 Monitor**	£535.00
M17V	**Apple 17" 1710 AV Monitor**	£745.00
M20D	**Apple 20" Trinitron Monitor**	£1275.00
RDI20	**Radius IntelliColour 20" Monitor**	£1399.00
SN15B	**Sony 15" Trinitron Monitor CPD 15SF1**	£359.00
SN17B	**Sony 17" Trinitron Monitor CPD 17SF2**	£599.00

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AFSA	**Agfa StudioScan IIsi** (2400dpi, fast, the best)	£549.00
SME3	**Microtek ScanMaker E3** (600dpi, with OmniPage)	£279.00
STAY	**Nikon AX1200** (fast, 1200dpi res A4 desktop scanner)	£849.00
COOL	**Nikon CoolScan II** (35mm slide scanner)	£995.00
UMPLP	**Umax PowerLook II Pro** (36bit 1200*600dpi)	£1995.00
OMPP	**OmniPage Pro 6.0** (OCR directly into applications)	£369.00
PPVX	**PaperPort VX** (greyscale desktop OCR and scanning)	£279.00

COMMUNICATIONS

MROL	**Motorola 3400** (MacUser Best Buy 28.8 baud)	£145.00
SPR5	**Sportster FaxModem** (28,800 baud, BABT approved)	£185.00
SPRM	**Supra FaxModem** (top quality, Grp III 28.8 baud)	£179.00
TLPP	**TelePort Platinum** (28.8 modem from Global Village)	£240.00

NETWORKING

ANET	**LocalTalk** (AppleTalk) connector kits	£14.00
FTNP	**PhoneNet connector kits**	£14.00
FEHA	**EtherLan Hub 9** (9 port ethernet 10baseT Hub)	£85.00
FAIR	**Farallon AirDock** (Infra Red LocalTalk connector)	£69.00
QKML	**QuickMail 3.5 10 User** (powerful flexible E-Mail)	£349.00
ASPA	**AsantePrint** (Ethernet to AppleTalk printer router)	£249.00
ETWx	**EtherWave** (daisychain Ethernet from Farallon)	£165.00
	Ethernet Cards & Tranceivers (Asante, Shiva, Focus)	from £25.00

MULTIMEDIA

MRPHB	**Morph 2.5** (morph from one QT movie to another)	£79.00
MDRT	**MacroMedia Director 5.0** (key multimedia tool)	£769.00
PRMR	**Premiere 4.2** (Adobe's brilliant QuickTime editor)	£399.00
VIDD	**Video Director 2.0** (edit your home videotapes)	£89.00

PC COMPATIBILITY

DSMT	**DOS Mounter Plus** (read/write PC floppies on your Mac)	£55.00
MLPT	**MacLink Pro** (best Mac/PC link with100's translators)	£105.00
PCEX	**PC Exchange** (Apple's own brand software)	£35.00
SFWD	**SoftWindows 3.0** (Windows 3 for PowerMac)	£199.00
SFWE	**SoftWindows 95** (Windows 95 for PowerMac)	£235.00

INTERNET

BK5010	**Internet Starter Kit** (the best book)	£27.50
CLEM	**Emailer** (great mail program, supports many services)	£55.00
EDRAA	**Eudora 2.1** (most popular mail package)	£55.00
INET	**Internet Access Kit** (Internet dial up, email, Web, FTP)	£25.00
NTSCB	**NetScape Navigator** (best browser, includes manuals)	£59.00
PGML	**PageMill** (the ONLY way to create web pages)	£75.00
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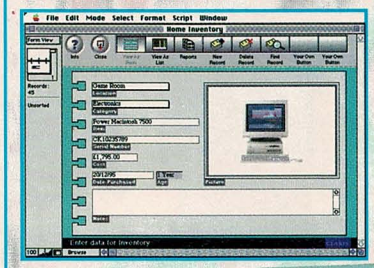

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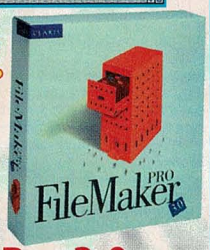

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GPCA	**PowerPort Platinum** (PCMCIA 28.8 fax modem)	£449.00
TPCM	**TDK Modem** (PCMCIA 28.8 fax modem)	£225.00

ACCESSORIES

	Cables, Toners and Ink Cartridges (for laser & inkjet printers)	call
KBCF	**Extended Keyboard** (15 function keys, numeric pad)	£49.00
QCKM	**QuickCam** (mono video camera for QuickTime)	£79.00
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SESY	**Security Systems** (is your Mac vulnerable to theft?)	from £29.00
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WCU4	**Wacom UltraPad A4** (professional stylus and tablet)	£359.00
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CDWB	**Metrowerks Code Warrior Bronze v8** (680x0 compiler)	£95.00
CDWG	**Metrowerks Code Warrior Gold v8** (PowerMac compiler)	£265.00
THKC	**Think C 6.0** (the leading Mac app development tool)	£185.00
THKP	**Think Pascal 4.0** (excellent developer level compiler)	£165.00
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INVU	**Conflict Catcher 3.0** (INIT manager and more)	£55.00
NDBP	**DiskDoubler Pro** (Disk,Auto and Copy Doubler)	£60.00
EXPO	**Exposure Pro** (professional screen capture utility)	£7.005
HDTK	**Hard Disk Toolkit** (the best formatter and checker)	£125.00
NUM	**Norton Utilities 3.2** (best selling utilities package)	special
NOWU	**Now Utilities 6.0** (suite of essential utilities)	£59.00
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RASP	**RamDoubler & SpeedDoubler Bundle**	£69.00
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SFDL	**Stuffit DeLuxe** (famous file compression program)	£65.00
SUIT	**Suitcase 3.0** (manage your font menus)	£55.00

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MPR1	**MacPrefect** (secures most aspects of the Finder)	£30.00
PRSB	**Personal Backup** (best value backup on the market)	£32.00
RTSP	**Retrospect 3.0** (powerful archival backup)	from £129.00
SAM	**SAM 4.0** (Symantec's anti virus utility)	£55.00
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KDMH	**KidsMath** (takes kids from counting to arithmetic)	£34.08	(£29)
KDPX	**KidPix II** (wonderful paint program with sound effects)	£34.08	(£29)
NMBM	**NumberMaze** (award winning arithmetic tutor)	£41.03	(£35)
RDMZ	**ReadingMaze** (letter recognition to sentences)	£41.03	(£35)
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DFMZ	**Decimals & Fractions Maze** (helps older kids)	£41.03	(£35)
TYEN	**Typing Instructor** (good training from basics to touch)	£29.38	(£25)
WIWD	**Where in World is Carmen DeLuxe** (geography based)	£34.08	(£29)

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9 Gig	£2199.00		

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D2230	**d2 230Mb Optical Drive** (inc cart)	£439.00
CDD2B	**d2 Quad Speed CD ROM Drive**	£179.00
D2DF	**d2 4/8Gb DAT Drive**	£879.00

MEDIA

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R80C	**88Mb Syq Cart**	£33.00	EZ#	**EZ Carts**	from £13.50
R20C	**200Mb Syq Cart**	£45.00	DATC	**90m DAT Tape**	£12.00
R12C	**128Mb Opt Cart**	£19.00	DATD	**120m DAT Tape**	£19.00
R23C	**230Mb Opt Cart**	£25.00	JAZB	**Jaz 1Gb Cart**	£85.00

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ARTB	**Arthur's Birthday** (more Arthur)	£34.08	(£29)
CRWRCD	**Creative Writer** (DTP for kids)	£29.38	(£25)
FNARCD	**Fine Artist** (great fun paint program)	£29.38	(£25)
LJZCD	**Logical Journey of the Zoombinies** (rave reviewed)	£29.38	(£25)
HHHS	**Harry and the Haunted House** (the new best seller)	£34.08	(£29)
KDPCD	**KidPix Studio** (KidPix plus animation)	£29.38	(£25)
WTSCD	**Mr Wonder's Toyshop** (storytelling, music, rhyme)	£29.38	(£25)
RUFF	**Ruff's Bone** (adventures with Ruff the dog)	£34.08	(£29)
HARECD	**Tortoise and the Hare** (the epic race)	£34.08	(£29)
	REFERENCE		
3DAT	**3D Atlas** (simply wonderful)	£41.03	(£35)
MAGCD	**Art Gallery** (Microsoft's tour of the National)	£45.83	(£39)
BKSCD	**Book Shelf** (superb, for everyday reference needs)	£45.83	(£39)
CINI	**Cinemania 95** (19000 movie reviews and more)	£29.38	(£25)
DINO	**Dinosaurs** (the "must have" CD of the year)	£29.38	(£25)
NCRT	**Encarta '96** (fantastic multimedia encyclopedia)	£64.63	(£45)
EOFCD	**Encyclopedia of Science Fiction** (a complete reference)	£34.08	(£29)
GRLCD	**Groliers Encylopaedia 95** (21 vols, 9 million words!)	£45.83	(£39)
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MICD	**Musical Instruments** (Microsoft's excellent entry)	£29.38	(£25)
MPCCD	**Monty Python's Complete Waste of Time** (not!)	£34.08	(£29)
OEDCD	**Oxford English Dictionary** (the whole thing)	£499.38	(£425)
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REDCD	**Red Shift** (superb astronomy program)	£45.83	(£39)
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		BEST SELLING GAMES ON CD		
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2)	MRTHCD	**Marathon II** (can you resist?)	£64.63	(£45)
3)	PRPCD	**Prince of Persia I & II** (two of the best ever)	£22.33	(£19)
4)	DKFCD	**Dark Forces** (brilliant game based on Star Wars)	£41.13	(£35)
5)	MYST	**MYST** (magical mystery adventure)	£41.13	(£35)
6)	PGA3	**PGA Golf III** (more challenging games)	£41.13	(£35)
7)	SIMCC	**Sim City 2000 Collection** (with extra goodies)	£45.83	(£39)
8)	ALRC	**Al Unser Jr's Racing** (arcade car racing)	£25.85	(£22)
9)	RBAS	**Rebel Assault II** (sequel to one of the best games)	£41.13	(£35)
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1)	ERIC	**Eric's Ultimate Solitaire** (a dozen patience games)	£41.13	(£35)
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4)	SIMC2	**Sim City 2000** (design and run your own city)	£34.08	(£29)
5)	F18H	**F/A18 Hornet** (from the creators of Hellcats)	£57.58	(£49)
6)	FSHB	**FlashBack** (Science Fiction adventure)	£29.38	(£25)
7)	A10A	**A10 Attack** (the best flight sim around)	£45.83	(£39)
8)	FLSM	**Microsoft Flight Simulator** (realistic, accurate)	£41.13	(£35)
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IFDCD	**In the First Degree** (play a murder prosecutor)	£41.13	(£35)
SIMI	**Sim Isle** (control your own island)	£34.08	(£29)
DIGCD	**The Dig** (Steven Spielberg space adventure)	£39.95	(£34)
YKJCD	**You Don't Know Jack** (fantastic quiz show)	£25.85	(£22)
	NEW GAMES ON FLOPPY DISK		
ARCD	**Arcade** (collection from Microsoft)	£22.33	(£19)
ISHD	**Ishido** (Chinese strategy game)	£25.85	(£22)
SRGV	**Sargon V: World Class Chess** (title says it all)	£19.98	(£17)

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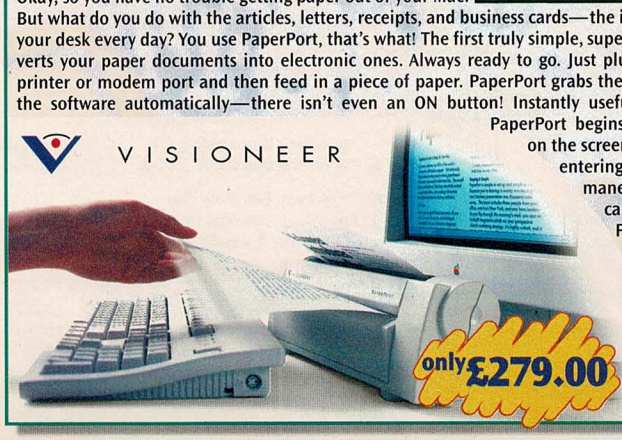

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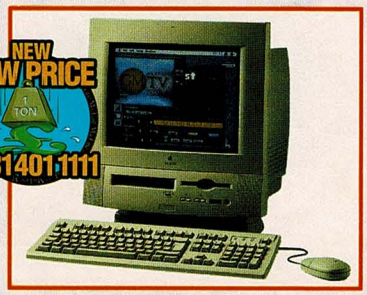

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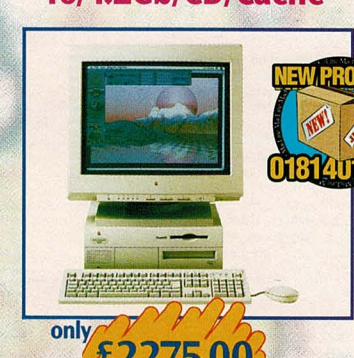
PowerPC PowerPC PowerPC

POWER MAC 7600/120 16/1.2Gb/CD/Cache



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PowerPC PowerPC PowerPC

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HYPC	HyperCard 2.3	£95.00
AINK	Apple Internet Connection Kit	£49.00
PCEX	PC Exchange 2.0	£35.00
S75A	System 7.5 Upgrade on floppy disks	£65.00
S75B	System 7.5 Upgrade on CD ROM	£65.00
SYSA	Lang. Kits:Arabic,Cyrillic,Hebrew,Japanese	from £99.00

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With its 66Mhz 68040 processor, the PowerBook 190 4/500 is really fast. It sports a 9.5 inch backlit passive matrix 16 grey level screen, a slot for PCMCIA cards and a trackpad. It is also available with a dual-scan colour screen. Software includes ClarisWorks, Route 66, a great solitaire game and the PowerBook mobility bundle.

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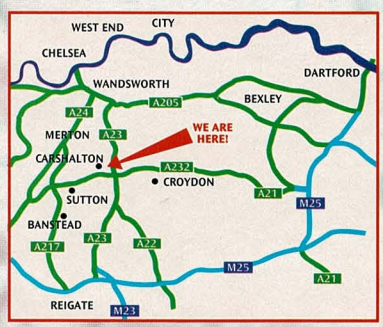

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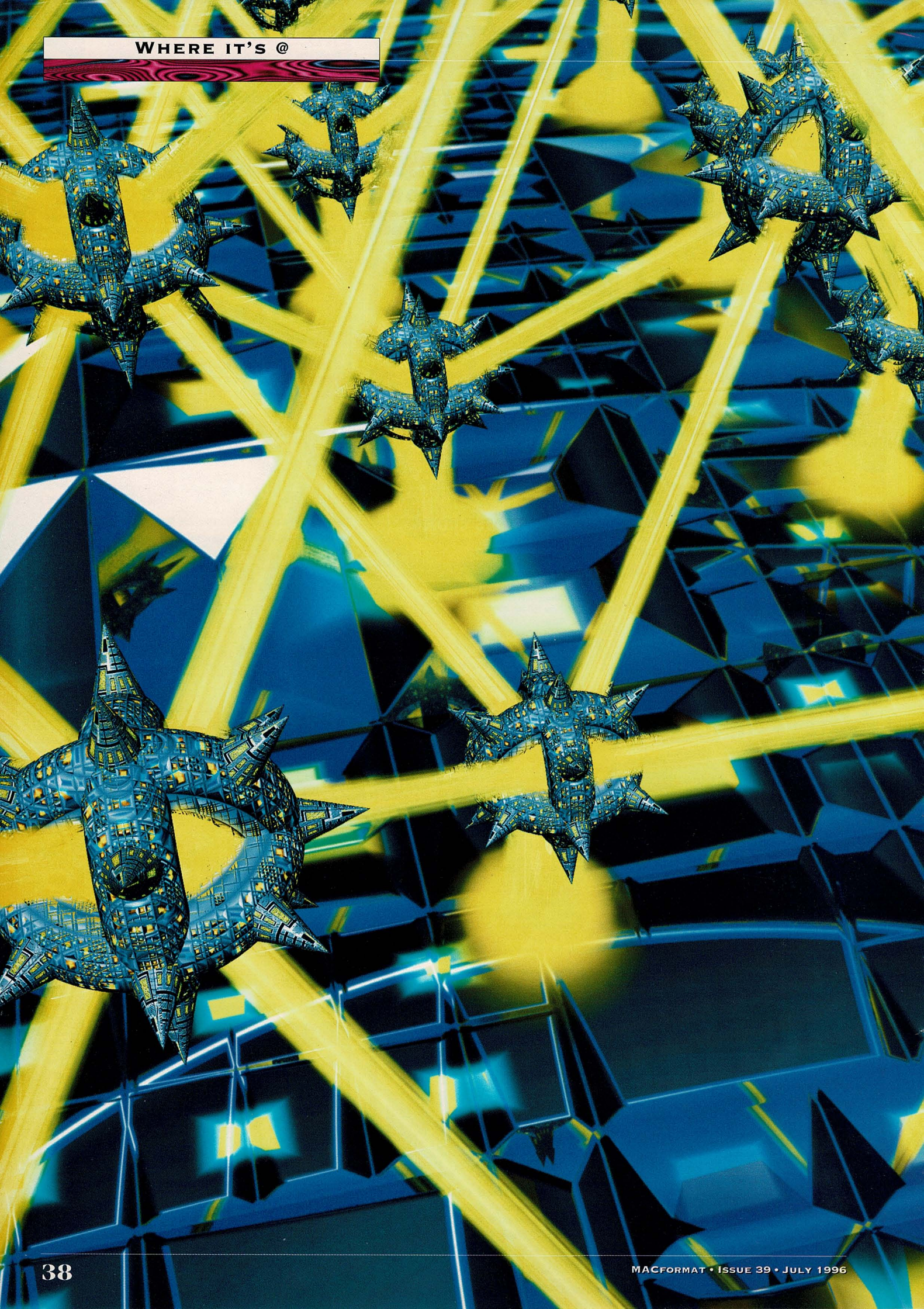
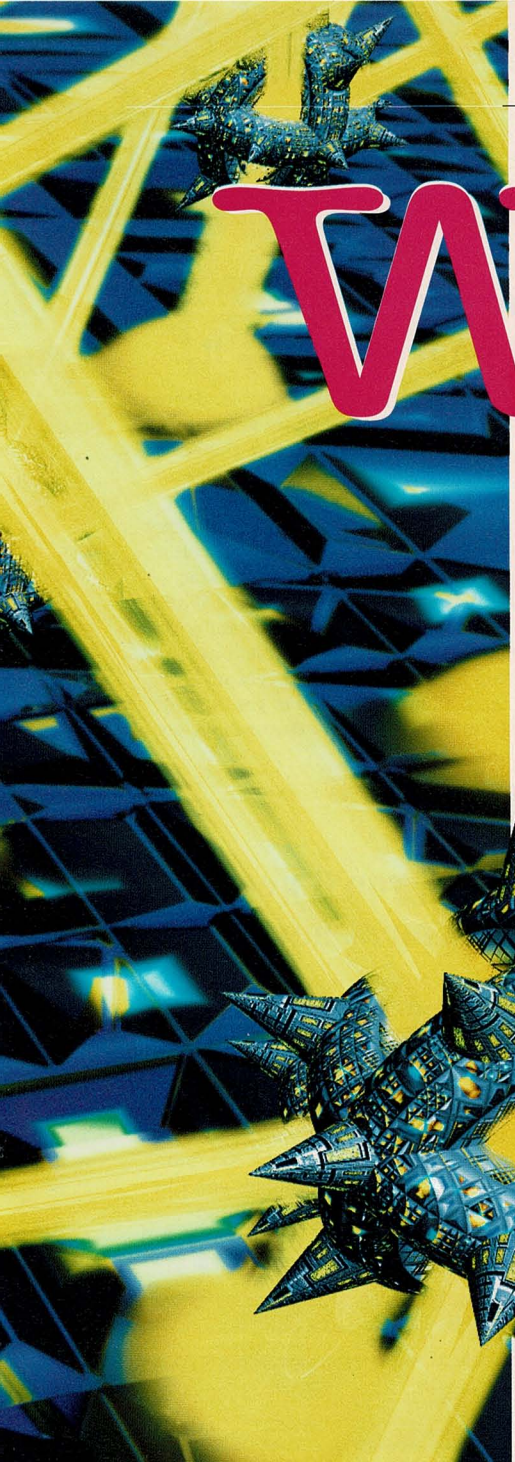


Where it's @



Get the most out of the Internet with MACFORMAT. We give you the full guided tour and show you how to exploit the areas you'll find within. Richard Hill is your translator...

Is the Internet the future? Or is it the CB Radio of the 1990s, a tool of limited use with a reputation getting blown out of all proportion? You've probably read pages and pages about this growing phenomenon in the past 18 months – but how useful is it really?

There are millions of pages' worth of news, information, gossip and entertainment stored on computers around the world, and it's all open to you thanks to the Net. Your Mac enables you to see any of these pages from any machine on the Net.

This issue, MACFORMAT looks at how you can make the best use of the different areas of the Internet, and what you need to get your Mac connected. We'll look in detail at the facilities you need and the services you can get, then take a peek at what's coming round the corner. It's everything you need to help you decide what's best for your own needs. Let's take a look at what's on offer...

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Service providers tested page 61

And in this issue's reviews section...

Modems tested page 85

The .net Directory

We asked those lovely people at our sister magazine .net Directory *to provide us with a list of 40 top Web sites for Macintosh users. Gil Gillespie, Mike Goldsmith, Clive Parker and Richard Hill have come up with a gorgeous bundle of Mac news and resources, alongside vital sites for graphics people, some leisure-time stuff, a taste of the unusual and a wealth of games areas. But remember – this is the Net. It's huge, it's live and it's open access. We've selected sites that we think reward any trouble you take to visit them, but where you choose to go from here is your own responsibility... All human life, as they say, is there.*

Want more? .net Directory *features hundreds of Net reviews every two months for just £4.99. The latest issue is on sale now.*

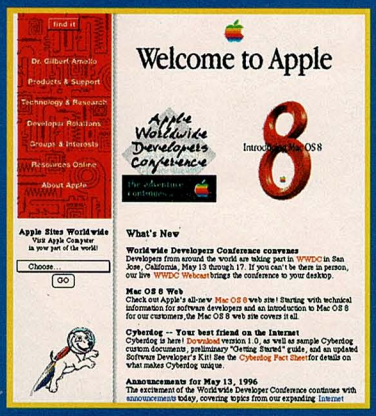
TOP APPLE SITES

Name: **Apple Computer Home Page**
What is it? The starting point for the big, wide world of Apple on the Web.

Continued on next page

The .net Directory

Where you'll find it: **http://www.apple.com/**
What's it like? Updating you on the very latest ideas to come out of Apple, the links on this page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Introducing Mac OS 8
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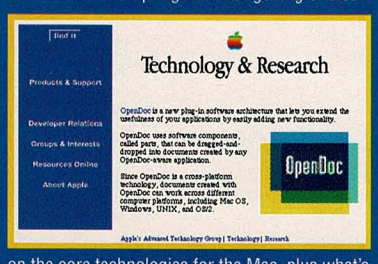
What's New
World-wide Developers Conference convenes
Developers from around the world are taking part in WWDC in San Jose, California, May 13 through 17. If you can't be there in person, our live WWDC Webcast brings the conference to your desktop.
Mac OS 8 Web
Check out Apple's all-new Mac OS 8 web site! Starting with technical information for software developers and an introduction to Mac OS 8 for our customers, the Mac OS 8 web site covers it all.
Cybertog -- Your best friend on the Internet
Announcements for May 13, 1996
The excitement of the World-wide Developer Conference continues with announcements today, covering topics from our expanding Internet

will start you on your travels through the Apple site, which expands into a fantastic odyssey of discovery. You'll get news, hard facts, technical reference, some pure entertainment and a dash of style. To find out exactly what's on offer, try the Web page
http://www.apple.com/main/contents.html
Overall: ★★★★★

Name: **QuickTime VR**
What is it? An introduction to Apple's virtual reality technology.
Where you'll find it:
http://qtvr.quicktime.apple.com/
What's it like? Small but perfectly-formed, the QTVR pages show you what the technology is about, then give it away. You can download the latest version of the QuickTime VR Player here, then help yourself to some choice samples.
Overall: ★★★★

Name: **Tech Info Library**
What is it? A compilation of advice and hard facts on your Mac and its mysterious inner workings.
Where you'll find it:
http://til.info.apple.com/til/til.html
What's it like? Again, who'd think that one simple page could lead to so much? Here are some of the answers you've been longing to find – how to install the System, what the error codes mean… it's all here. And you can find what you want with a simple search.
Overall: ★★★★★

Name: **Technology & Research**
What is it? Your springboard for getting briefed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OpenDoc is a new plug-in software architecture that lets you extend the usefulness of your applications by easily adding new functionality.
OpenDoc uses software components, called parts, that can be dragged-and-dropped into documents created by any OpenDoc-aware application.
OpenDoc
Since OpenDoc is a cross-platform technology, documents created with OpenDoc can work across different computer platforms, including Mac OS, Windows, UNIX, and OS/2.
Apple's Advanced Technology Group | Technology | Research

on the core technologies for the Mac, plus what's coming up.
Where you'll find it:
http://www2.apple.com/documents/techres.html
What's it like? This is really a nest for all sorts of varied sites, including the QuickTime VR site mentioned above. You'll find some areas are polished but lack content, while others offer free

What's on the Net?

The Internet brings you information stored on computers around the world – but what exactly is it?

The Internet is a network of computers, each linked to the others. The computers are able to communicate thanks to ideas developed in the 1960s by the US Government.

The Net has grown in a higgledy-piggledy fashion ever since that first e-mail system, adding different systems which each perform a different role and work independently of each other. Nowadays voluntary organisations decide the standards or protocols the machines use: the World Wide Web Consortium, for example, defines the format Web pages are written in.

Because of the loose way the Net has grown, it spews out terms like HTTP, FTP and Usenet. The Net isn't exactly the easiest piece of technology to get the hang of, especially if you're used to the friendliness of the Mac. Things are getting easier as the World Wide Web brings together standards into a more cohesive whole, but you'll still need to roll your sleeves up and learn some new terms to get the best from the Net. We'll explain as we go.

What you need

If you want to use any areas of the Net, you'll need a connection. Here's the equipment you must have:

1 Your Mac
Any Mac can enable you to get on the Net, although you'll need System 7 and a colour screen to make the most of areas like the Web.

2 Mac TCP
Mac TCP is essential: it's a Control Panel that enables your Mac to connect to the Internet, but it can be difficult to get hold of if you have an older Mac. It's included with System 7.5, and we look at a couple of other sources opposite.

This Global Village modem is one of many you can choose from so you can use your phone line to connect to the Net.

3 Connection
Either you're at a firm or college with a direct Net connection or you'll need a modem, a device which plugs into your Mac and uses your phone line to link to the Net. See page 85.

4 Internet service provider
Once you have your modem, you need an ISP – a firm that has the fast direct connection that your Mac lacks, so you can use your modem to phone up the ISP's machines to piggy-back onto the Net. See page 61.

5 The right software
Your ISP should provide you with software that enables your Mac to reach the main areas of the Net, but there are always alternatives you can try – see page 45.. The minimum you'll need is a good Web browser and a program to handle your e-mail.

Netscape: Welcome to Netscape
Location: http://home.netscape.com/
WELCOME TO
NETSCAPE
YOUR GUIDE TO NAVIGATING THE NET
NETSCAPE DESTINATIONS
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NETSCAPE NEWS: MAY 16
Announcing Netscape Navigator 2.02, which offers security enhancements, Daylight Saving Time page updates, and other improvements.
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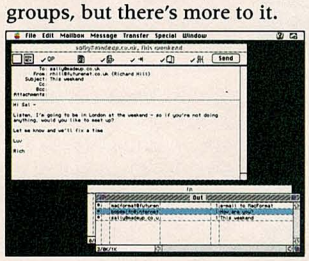
Buy a server and get a free server subscription....
News Server 2.0 beta available ... PointCast Network now works with Netscape Navigator 2.02 ... Navigator 3.0 beta released ... more Netscape
PERSONAL EDITION, VERSION 2.0
For easy, automatic dial-up access to your choice of leading Internet Service Providers, use our award-winning Netscape Navigator Personal Edition software. We've just released Version 2.0, available at a retailer near you and from our General Store.
Reading file...

Any service provider worth its salt should give you the software you need to see the different Net areas – like *Netscape Navigator*, above.

THE BEST OF THE NET

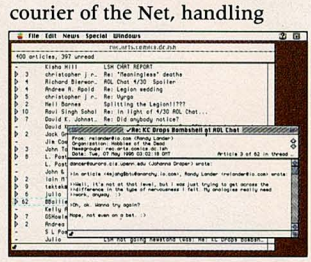
E-mail
Sending messages to people was how the Net got started, and it's still the main purpose of it all. You can send a message to anyone with an e-mail address, anywhere in the world.

Newsgroups
Not so much a source of news as a debating chamber, Usenet consists of hundreds of discussion groups or newsgroups. Drop in on any you like to read what's going on, adding your own comments if you wish. The area is notorious for its adult groups, but there's more to it.



Eudora Light is a program that enables you to send and receive e-mail.

FTP
File Transfer Protocol is the courier of the Net, handling



Enjoy the cut and thrust of debate, or just throw insults around, in Usenet.

The best place to start

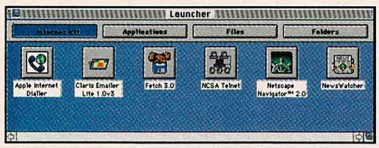
If you find the Internet confusing, a complete starter kit may offer the help you need to make sense of it.

Internet service providers offer varying levels of support to Mac users. You may find the software bundle that comes with your subscription contains all the applications and System Extensions that you need, and foolproof instructions on how to set it all up. Or you may find that you need to hunt down the required software yourself from FTP sites, and decipher instructions written by programmers for (apparently) other programmers.

The alternative is to go for an Internet startup kit aimed specifically at beginners – Internet service provision is an optional extra; the main focus is getting you and your Mac on-line with any service provider. We looked at two kits: the new *Apple Internet Connection Kit* (£54.99) and the *World Wide Web Kit* from Ventana Press (£43.42). Both are available from most Mac dealers.

The Apple Internet Connection Kit (*AICK*) is the one most Mac owners might automatically home in on. Most service providers too, in fact. PIPEX will be supplying the kit to its Mac subscribers and at least one other major service provider is hoping to use the kit as part of its Mac Internet subscription package.

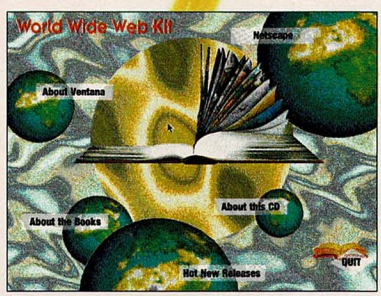
The *AICK* is certainly complete. You get the latest versions of MacTCP and MacPPP, plus the world's most popular Web browser, *Netscape Navigator 2.0*. Although *Netscape* handles e-mail and newsgroups, the *AICK* also contains *Claris Emailer Lite*, *Fetch 3.0* (for FTP), *NCSA Telnet* and *NewsWatcher* (a dedicated newsreader). It's a nuisance having to migrate to other applications while using *Netscape*, but it's sometimes worth it for better FTP, e-mail and newsgroup features. Overall, the *AICK* is good value and easy enough to set up. It's a pity there's no printed documentation or overview of the Internet in general.



The *Apple Internet Connection Kit* installs an updated Launcher and a row of icons for your Internet software suite (but will you ever use anything other than *Netscape*?).

This is where the *World Wide Web Kit* from Ventana Press scores. The package comes with a big book on the World Wide Web, together with a CD-ROM containing an interactive version – you can use the copy of *Netscape Navigator* (version 1.1) supplied to explore the Web pages on the CD-ROM as if you were on-line – but without running up phone charges! It's a great introduction for beginners and a clever idea.

Sadly, the connectivity software is a little out of date. The kit comes with MacTCP (not supplied as part of your Mac's System software until version 7.5) and SLIP connection software. The technicalities are unimportant – what you really need to know is that the SLIP protocol has been superseded by the PPP protocol. It means you might want to make sure that your chosen service provider supports SLIP connections. And although the kit contains a fully licensed version of *Netscape*, it's the old 1.1 release. You don't get e-mail, newsreader or FTP applications either.



The CD-ROM with the *World Wide Web Kit* is an interactive Internet experience, showing beginners the sights and basic Web principles without costing them a penny on phone bills.

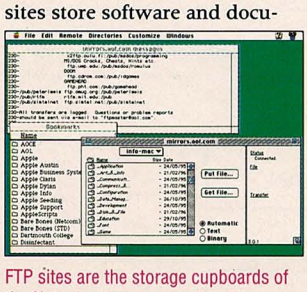
The sample Web pages placed on its CD-ROM mean that the *World Wide Web Kit* does give you a great introduction to the Web, but you may still have to rely on your service provider for the latest connectivity software and technical help.

ROD LAWTON

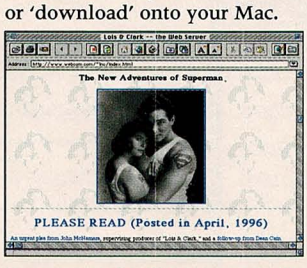
JARGON BUSTER

TCP and PPP are all systems your Mac needs in order to open a connection with the Net. MacTCP is the only version you can get of that system, but there are many free versions of PPP, including one on our CD-ROM this issue.

chunks of information too big for e-mail to deal with. FTP sites store software and document files like images and sounds, which you can transfer or 'download' onto your Mac.



FTP sites are the storage cupboards of the Net – just help yourself to files.



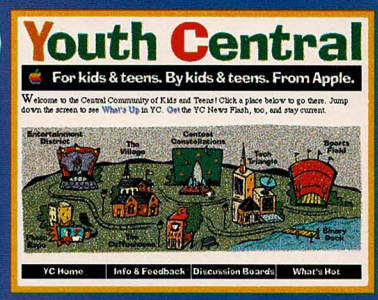
Anyone can write a Web page, so you'll see loads of fan sites like this.

■ The World Wide Web

The Web is becoming the Net in the eyes of many people, offering the slickest experience of all the different areas. Modern Web programs – browsers – now incorporate other systems like File Transfer Protocol and newsgroups, meaning you'll only need to use that one program a lot of the time. All the information is presented in a polished format of text and images, with links moving you from page to page.

software and hard facts. You'll also be guided towards research papers on future technologies.
Overall: ★★★

Name: Youth Central
What is it? An Apple site done just for laughs – articles and gossip for kids.
Where you'll find it: **http://yc.apple.com/**
What's it like? Terrifying. To think this whole


Youth Central
For kids & teens. By kids & teens. From Apple.
Welcome to the Central Community of Kids and Teens! Click a place below to go there. Jump down the screen to see What's Up in YC. Get the YC News Flash, too, and stay current.
Entertainment District
The Village
Contest Considerations
Tech Triangle
Sports Field
Ghost Town
YC Home
Info & Feedback
Discussion Boards
What's Hot

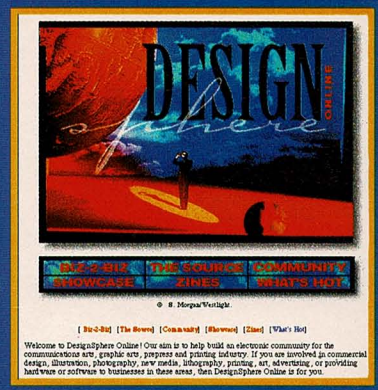
magical blend of education features that don't scream 'learning!', discussion groups on pop and movies and drawings and poems was devised by a 15-year-old!
Overall: ★★★★

DTP AND GRAPHICS

Name: Adobe Systems
What is it? A complete guide to Adobe products, including plans for the future and free software.
Where you'll find it: **http://www.adobe.com/**
What's it like? Full-to-bursting with information about Adobe products, including *Photoshop* and the firm's new generation of Web software. More than just a PR site, it features hints and tips and loads of free software.
Overall: ★★★★★

Name: Anton's FreeHand Page
What is it? A compendium of tips and advice for Macromedia's top illustration program.
Where you'll find it:
http://www.euro.net/ecompany/afpindex.html
What's it like? Anton Futselaar offers an independent view of *FreeHand*, celebrating its strengths and acknowledging its faults. You'll find reports on bugs, shortcuts, general tips and much more. There's also a good section on artists who use *FreeHand*.
Overall: ★★★★

Name: DesignSphere Online
What is it? An electronic meeting point for designers and others in the graphics industry.
Where you'll find it: **http://www.dsphere.net/**
What's it like? DesignSphere is a still-growing example of how the Net can be a focal point for far-flung communities – in this case, designers around the world. There's plenty of information


DESIGN sphere ONLINE
BIZ-2-BIZ
THE SOURCE
COMMUNITY
SHOWCASE
ZINES
WHAT'S HOT
© M. Morgan/Wetlight.
[Biz-2-Biz] [The Source] [Community] [Showcase] [Zines] [What's Hot]
Welcome to DesignSphere Online! Our aim is to help build an electronic community for the communications arts, graphic arts, prepress and printing industry. If you are involved in commercial design, illustration, photography, new media, lithography, printing, art, advertising, or providing hardware or software to businesses in these areas, then DesignSphere Online is for you.

on Web magazines, artists and design firms you'll find useful.
Overall: ★★★

Continued on next page

BEST SERVED CHILLED

Try before you buy!*

REFRESHING THE PARTS OTHER PROVIDERS CAN'T!

INGREDIENTS

Local call access

Local call access for upto 94% of uk means you can surf longer cheaper!

Complete support

Friendly expert help 7 days a week giving full technical support

Great with a curry

Web space/design/consultancy ISDN single host/routed Leased lines 64K to 2Mb

Simple installation

Two disks, 10 minutes and you're there!

Triple Strength

2mb of fast connectivity!

Cyberia internet cafes:
Ealing, Edinburgh, Kingston upon Thames, Manchester, London w1, Tokyo and Paris (in the Pompidou centre)

Contact: Easynet Group PLC, 39 Whitfield Street, London w1p 5re. Phone: 0171 209 0990 Fax: 0171 209 0891

E-mail: ***postbox@easynet.co.uk*** Web: ***http://www.easynet.co.uk***

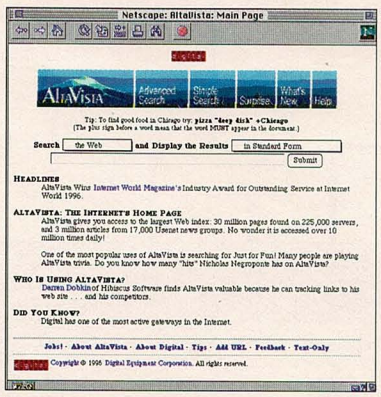
The heart of the Net

The World Wide Web is swallowing up other parts of the Net, quickly becoming the all-in-one Net solution.

The World Wide Web is the fastest-growing area of the Net. It gives you pages of text and graphics similar to the ones you see in books and magazines. It's also the fastest-changing area, with developments in technology meaning it's becoming more sophisticated. And it's so easy to use you'll learn the basics in ten minutes.

Each Web page you read is stored on a computer (also referred to in this case as a server) somewhere in the world. Your Mac can access it using a system called HyperText Transport Protocol (HTTP). This is a way of giving each page its own name to describe where it is.

The Web uses the idea of hypertext to enable you to jump from page to page. While reading a written article,

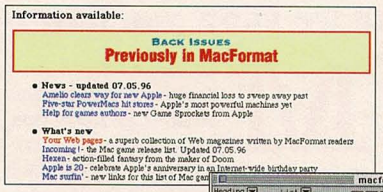


Lost on the Web? Use a search site like Alta Vista to find the pages you've been looking for.

you'll come across links – pieces of coloured text that take you to another point of the article when you click on them with your mouse. In the case of the Web, every link you see includes the location of another page – clicking on it will take you straight there.

The pages are displayed in a program called a Web browser (see the guide on the next page). There are several to choose from and you should

Apple has many Web sites with loads of information – check the UK page for local news.



Each Web page (like the MACFORMAT home page, left) isbuilt using HTML code (below), which describes the way the page should look.

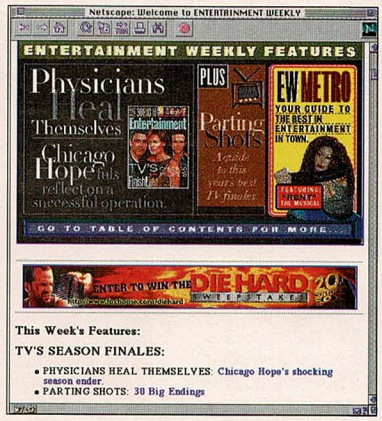
receive one when you open your Internet account, but you can then download a new or different browser from the Web whenever you like.

On the face of it, browsers all do much the same thing: any of them can display the text and pictures of HTML pages, enable you to follow links, store your favourite locations as bookmarks and save pages for reference, either as HTML documents or as plain text. The speed of your browser is likely to be governed by the type of connection you have rather than the browser you're using and there are only a limited set of controls you need when you tour the Web. But it's worth thinking carefully about which browser you should use.

WEB LANGUAGE

HyperText Markup Language or HTML is the code your Web browser downloads from the Net, then converts into the Web page you see. It tells the program where to place text and images on the page.

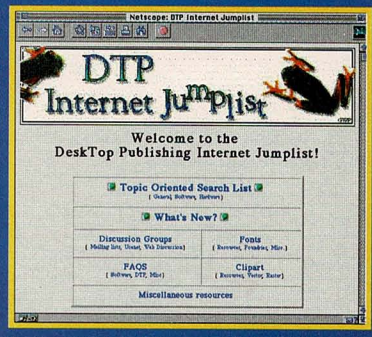
Although HTML consists of a core set of commands that all browsers must understand to work properly, there are additional commands that more and more Web site builders are using in their pages. These were invented by Netscape Corporation, maker of the market-leading *Navigator* (one survey gives it 84% of the market). Netscape's dominance gives it the confidence to set the rules: rather than wait for voluntary organisations to introduce new features to HTML, it's done it itself. The point is not so much whether Netscape's own version of HTML is relevant as whether the new 'official' HTML will be relevant!


Netscape: Welcome to ENTERTAINMENT WEEKLY
ENTERTAINMENT WEEKLY FEATURES
Physicians Heal Themselves
Chicago Hope pulls reflect on a successful operation
PLUS
Parting Shots
EW METRO
YOUR GUIDE TO THE BEST IN ENTERTAINMENT IN TOWN
ENTER TO WIN THE DIE HARD 2 SWEEPSTAKES
This Week's Features:
TV'S SEASON FINALES:
PHYSICIANS HEAL THEMSELVES: Chicago Hope's shocking season ender
PARTING SHOTS: 30 Big Endings

Catch the latest in entertainment news with weekly or even daily magazines.

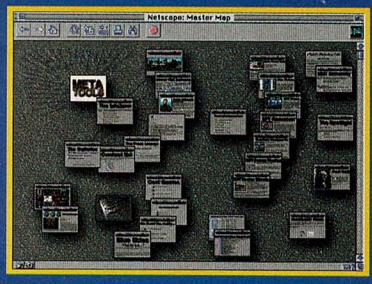
Netscape is also establishing the new direction of the Web, building on its browser's ability to display graphics by adding video, animation and more. It's also turning the browser into something that handles more than just Web pages. A good browser will also offer FTP, e-mail and newsgroup facilities. This system isn't as flexible as using separate programs for each protocol, but it's far more convenient.

Name: **The DTP Internet Jumplist**
What is it? A collection of links to designer destinations on the Net.
Where you'll find it:
http://www.teleport.com/~eidos/dtpij/dtpij.html
What's it like? It's a useful resource for



designers, or even if you want to find out more about the subject. You'll find loads of links towards sites you might spend months trying to find otherwise.
Overall: ★★★

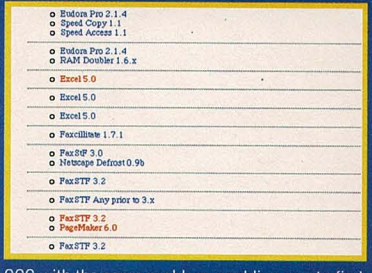
Name: **MetaTools Inc**
What is it? The official site for the company behind *Bryce, Kai's Power Tools* and *Convolver.*
Where you'll find it: **http://www.metatools.com/**
What's it like? As unconventional as the



programs it promotes, the MetaTools site offers a glimpse of the firm's products, with a wide-screen tree diagram of pages as your contents list. You're treated to some galleries of what can be done with the products on top of the usual press release material.
Overall: ★★★

MAC RESOURCES

Name: **The Complete Conflict Compendium**
What is it? A reference file that tells you which program clashes with which.
Where you'll find it:
http://www.islandnet.com/~quill/c3data.html
What's it like? If your Mac is behaving erratically and you can't figure out why, there may be a software clash. Someone may have written to the

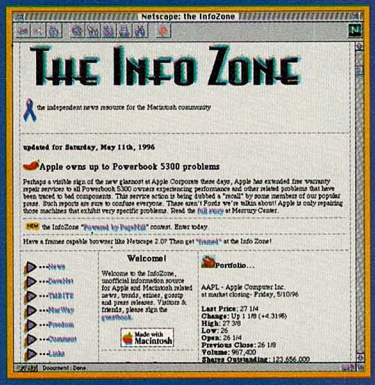


CCC with the same problem, enabling you to find out how to solve it.
Overall: ★★★

Name: **The InfoZone**
What is it? A compendium of the latest Mac news and where you'll find it.
Where you'll find it:
http://www.west.net/~cjsparno/

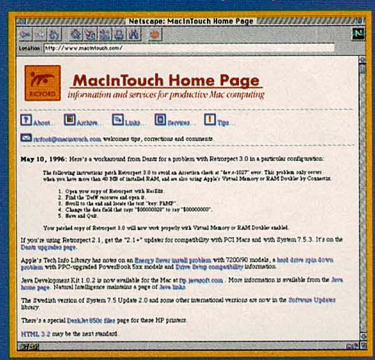
Continued on next page

The .net Directory


Netscape: the InfoZone
THE INFO ZONE
the independent news resource for the Macintosh community
updated for Saturday, May 11th, 1996
Apple owns up to Powerbook 5300 problems
Welcome!
Portfolio...
Made with Macintosh

What's it like? A handy page that lists the main news sources elsewhere on the Web and updates you on latest Apple share prices (for horror fans)
Overall: ★★★

Name: **MacInTouch**
What is it? A newsletter that lets you know about software updates and any new problems reported with both Macs and software.
Where you'll find it:
http://www.macintouch.com/
What's it like? Invaluable. If you buy a lot of



stuff and it's essential that your Mac and software run reliably, this site will keep you informed about any potential problems.
Overall: ★★★★★

Name: **Nathan's Everything Macintosh**
What is it? One of many Mac jumplists – compilations of Mac sites all over the Web. This one's by Nathan Raymond.
Where you'll find it:
http://www.cs.brandeis.edu/~xray/mac.html
What's it like? Hundreds of Web links, divided into subject areas like Apple Computer's own sites, user groups, corporate sites and software updates, are splashed across a vibrant blue background.
Overall: ★★★★

Name: **TidBITS**
What is it? Web version of a popular weekly e-mail magazine by respected Mac writers Adam and Tonya Engst.
Where you'll find it: **http://www.dartmouth.edu/pages/TidBITS/TidBITS.html**
What's it like? TidBITS offers a healthy weekly dollop of hard facts – the big Mac news stories and, most vitally, coverage of technical and Internet issues.
Overall: ★★★★

INTERNET RESOURCES

Name: **Alta Vista**
What is it? Probably the best search engine on the Web. It's there to help you find the site you're looking for.

Explore the Web

There are many browsers you can use to work through the Web. *Internet Explorer* is free on this issue's Cover CD-ROM and we show you how to get started...

Microsoft's *Internet Explorer 2* is yours free on our CD-ROM this issue. Once you have an Internet connection, you can use it not only to view Web pages, but also to send e-mails (as long as you have an e-mail address) and view a selection of newsgroups.

If you don't already have an Internet account, you can get a taste of the Web with the pages from our own MACFORMAT site that we've placed on the CD. See page 58 for a preview.

Use this guide to learn the icons and buttons to control *Internet Explorer;* all the functions are also available through menu controls if you prefer. Our guide will also help you discover the basic elements on a Web page.

This first cluster of icons enables you to open a Web page, print out a page and send an e-mail.

With the third group, you can stop the loading of a page or refresh the page you have on-screen. This is useful where pages are updated every few minutes.

The fifth set of icons enables you to open up your list of favourite sites, or add another to the list.

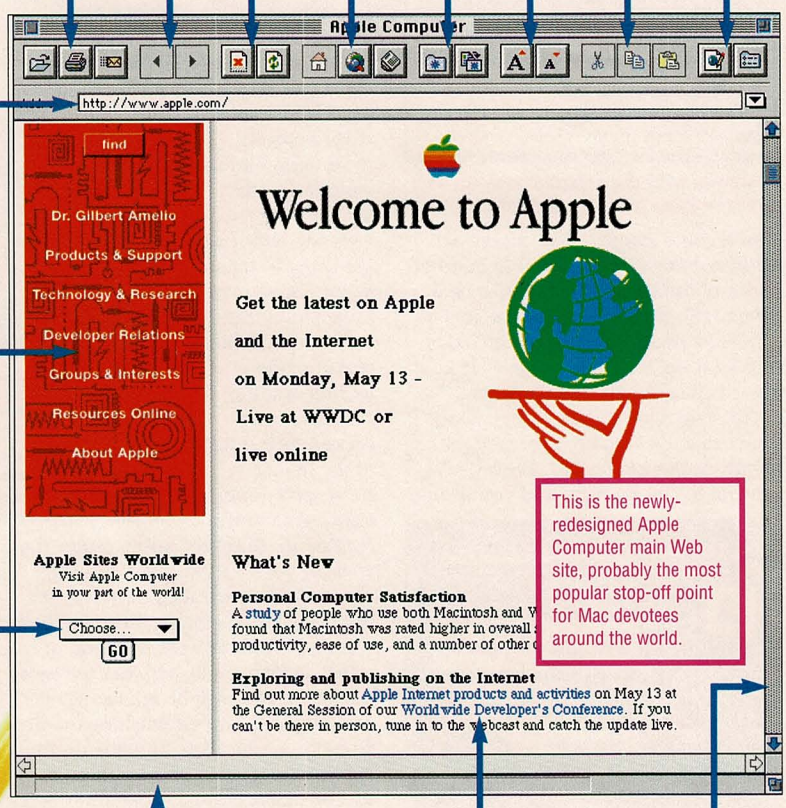
Make a selection on the Web page, then cut, copy or paste it with these.

Use the second group to move backwards and forwards through the Web pages you've visited in your current session.

With the fourth group, go straight to your nominated home page, Microsoft's page of search facilities or the list of newsgroups.

Increase or decrease the size of the font on your Web page with these icons.

Display the HTML source code used to describe the Web page or open up your Options box with this eighth icon set.


Apple Computer
http://www.apple.com/
find
Dr. Gilbert Amelio
Products & Support
Technology & Research
Developer Relations
Groups & Interests
Resources Online
About Apple
Welcome to Apple
Get the latest on Apple
and the Internet
on Monday, May 13 -
Live at WWDC or
live online
Apple Sites Worldwide
Visit Apple Computer
in your part of the world!
Choose...
GO
What's New
Personal Computer Satisfaction
Exploring and publishing on the Internet
Find out more about Apple Internet products and activities on May 13 at the General Session of our Worldwide Developer's Conference. If you can't be there in person, tune in to the webcast and catch the update live.

You can type a Web address into this line to start your trip around the Web. Clicking the arrow to the right reveals the list of sites you've visited.

This panel of places to visit is actually an image file. It's stored as an imagemap, where you're taken to a different page depending on which part of the map you click.

Web pages can include pull-down menus – they work just like the menus on your Mac screen. You may also see questionnaire forms you can fill in.

This is the newly-redesigned Apple Computer main Web site, probably the most popular stop-off point for Mac devotees around the world.

As pages become more complex, how you do tell if a piece of text or graphic that doesn't follow these rules still leads to another page? Whenever you pass your cursor over a link, visible or invisible, the destination address will appear here.

Any piece of text which is a different colour from the main text is a link. (It's usually blue.) Click on one to move to a different page. Images can also be links, and are sometimes surrounded by a coloured border.

Use the scroll bar to move further down the page. Reassuring how some things stay the same, isn't it.

Battle of the browsers

Which browser offers the features you need as the Web develops? Rod Lawton tests the range.

Netscape Navigator 2

If eight out of ten Internet users do their browsing with *Netscape Navigator,* it must be something special. At first sight it seems no better than Microsoft's *Internet Explorer,* which has some neat shortcuts that maybe put it a mite ahead. But for the most part, a browser is a browser... Isn't it?

Navigator may or may not be the best browser you can get, but it is the one that will be able to display *every* site you visit. If Microsoft wants to take over this market, it faces a long and bloody struggle, because Netscape is practically inventing the World Wide Web as it goes along.

Although *Explorer* can handles practically every Web gadget that *Navigator* can, including the special HTML codes and tables devised by Netscape, there are two things that the latter product has up its sleeve: frames and Java.

Using frames you can display several Web pages in one main window. The pages are displayed in frames of different shapes within this window, and you can follow links from each in the normal way.

Not everyone likes frames: it can be hard to keep your bearings as you navigate from page to page, and the **Forward** and **Back** buttons don't work in quite the simple way you may be used to. Nevertheless, some Web designers love frames, so get used to them.

Java is altogether more interesting. It enables programmers to build applets – tiny programs that download to your Mac alongside a Web page's text and images. A common use for an applet is to display an animation, but the Java system goes much further than this and is actually a complete programming language.

Where *Navigator* really scores is in its extra capacity as an e-mail application and newsreader. These features are integrated seamlessly into the Web browser and have interfaces which are better than those of some dedicated e-mail or newsreader programs.

Newsgroups and e-mail are organised in a hierarchical structure, with folders and sub-groups that will be familiar if you already make use of the clickable arrows in your Mac's Finder. The whole system is wonderfully simple, quick and flexible.

At the moment, it's hard to find a good reason not to use *Netscape Navigator 2.* Its rivals are free, but a licence fee of $49 (£32.70) is hardly going to break the bank, and for such a complete product, it's worth the cash. It's the product the rivals look to, but they're still falling behind.

What a glorious sight! The FutureNet page – **http://www.futurenet.co.uk/** – as it's meant to be seen. No real surprise: the pages are designed to be viewed with this software, *Netscape Navigator.*

MACFORMAT Classic

NETSCAPE NAVIGATOR 2

Price: $49. **Out:** now.
Requires: LCII or better, 4Mb RAM (8Mb recommended), System 7.
Contact: Netscape at http://home.netscape.com

MACFORMAT RATING 94%

IN NEED OF SUPPORT?

Netscape has added many extensions to the basic HTML language, making it possible to produce highly effective and neatly-designed Web pages. Web page builders have used these extensively – many sites have been 'optimised' for *Netscape Navigator* and are therefore best viewed with this browser. We asked the FutureNet team whether the FutureNet pages were designed with other browsers in mind too. It went very quiet. Somewhere far away, a pin dropped.

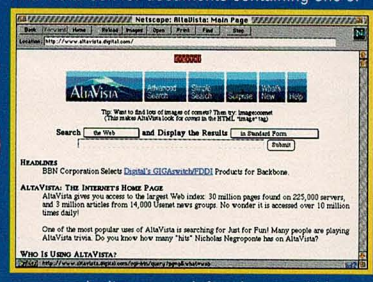
Internet Explorer 2

Microsoft must be worried: Netscape is achieving the dominance on the Internet that Microsoft has grown accustomed to in the desktop computer arena. Now Microsoft is fighting back, with its *Internet Explorer* browser. After a 90-day trial period you have to register your copy with Microsoft, but no charge is made. It's free, but is *Internet Explorer* worth using instead of *Netscape Navigator?*

Explorer doesn't feel so different: browsers have now assumed the standard format you can see on the opposite page. But when you start poking beneath the surface, you'll find Microsoft has built in a few nice touches and new ideas.

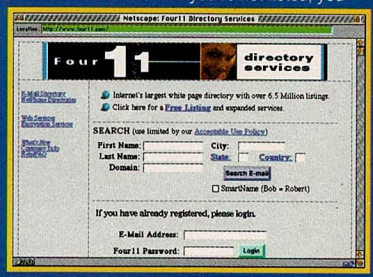
Because you might only be interested in the text on the page, any browser will let you switch off picture loading. *Explorer* has yet another option: you can choose whether the pictures are loaded continually or displayed all at the same time, once the

Where you'll find it: **http://www.altavista.digital.com/**
What's it like? It's just about the best search engine on the Web at the moment. Not only does Alta Vista look for documents containing one or



more words, it can search for phrases within documents. This makes it an ideal search engine for looking for concepts such as 'Macintosh shareware' or 'Mac downloads' because it looks for the phrase rather than individual words. This means you can search for names, simply by enclosing them within quotes. So, to look for Homer Simpson you just enter 'homer simpson' into the search field. Simple, fast and powerful.
Overall: ★★★★★

Name: **Four11 Directory Services**
What is it? A search engine for e-mail addresses.
Where you'll find it: **http://www.four11.com/**
What's it like? If you want to find out whether any of your friends have e-mail addresses, this is the place to look. There are over six million entries in the Four11 white pages so far. Not just e-mail addresses, but Internet phone listings too. Of course, with so many people using the Net (over 36 million) it's impossible for the directory to be complete. But it's easy to use – just enter forename and surname and hit the search button. That's all there is to it. If you're not listed, you



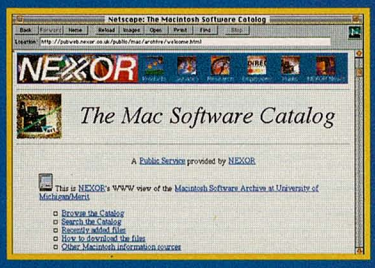
can add an entry for yourself by filling in an on-screen form. Top stuff.
Overall: ★★★★

Name: **Yell**
What is it? On-line directory of UK events and the Yellow Pages.
Where you'll find it: **http://www.yell.co.uk/**
What's it like? At first you might expect the official on-line version of the Yellow Pages to be dull and tedious, but it's well designed and very easy to navigate. The Yell pages also boast a film finder where you can check what's on at your local cinema, a sports section, news and reviews and a 'What's hot' on the Web section.
Overall: ★★★

Name: **The Macintosh Software Catalogue**
What is it? A mirror of the Macintosh Software Archive at University of Michigan/Merit.
Where you'll find it: **http://pubweb.nexor.co.uk/public/mac/archive/welcome.html**
What's it like? It's brilliant, fab, great, super. This is a mirror (copy) of the Mac Software Archive in the US. It's updated on a daily basis, so you can be sure that the software stored here is the very latest version available anywhere. The site is split into different sections, so you can

Continued on next page

The net Directory


Netscape: The Macintosh Software Catalog
NEXOR
The Mac Software Catalog
A Public Service provided by NEXOR
This is NEXOR's WWW view of the Macintosh Software Archive at University of Michigan/Merit.
Browse the Catalog
Search the Catalog
Recently added files
How to download the files
Other Macintosh information sources

browse though the collection by type, graphics, comms and so on. Or you can search for keywords in descriptions, if perhaps you're looking for graphics software, say. It's very easy to use and it's got to be the best Mac resource in the UK. Bookmark it.

Overall: ★★★★★

Name: **Netscape Communications Corp.**

What is it? Home site of Netscape, creator of the *Netscape Navigator* Web browser.

Where you'll find it: **http://home.netscape.com/**

What's it like? It's big, it's busy and you can always get the very latest version of the *Netscape Navigator* Web browser, currently up to release version 2.2. As well as the browser itself, the

Netscape: Welcome to Netscape
NETSCAPE
NETSCAPE NEWS: MAY 15
Netscape and Hewlett-Packard announced a strategic alliance to develop and deliver enterprise intranet solutions
ANNOUNCING NETSCAPE NAVIGATOR 2.02
Download the newest release of Netscape Navigator and read about recent enhancements. Upgrade patches for Windows, Macintosh, and Unix are also available.
NEXT GENERATION FASTTRACK SERVER

Netscape pages are the perfect link page for finding all the latest plug-ins for *Navigator*. A full list of all plug-ins is always posted on the site, with details of the operating systems they require. A large number of them are available for the Mac, surprising when you consider how the Net is dominated by PC clones. If you want the latest Web technology, Netscape is the site to visit.

Overall: ★★★★★

ALTERNATIVE

Name: **Mirsky's Worst of the Web**

What is it? Purveyors of naff Web sites beware! The Guardians of Taste have a champion and his name is... MIRSKY!

Where you'll find it: **http://mirsky.com/wow/**

What's it like? 'Worst Of The Web is not for kids,' quoth Dave Mirsky in the first issue of *.net Directory* and, for the first time, he's dead wrong – this is the ultimate stop-off point for your HTML literate sprog to see just how it *shouldn't*

be done. The Web is chocka with the dull, the dross and the downright despicable and, day in, day out, Mirsky trawls the Net in a holy effort to provide links to the very worst pages imaginable. An innocent mouse click on any of the zillion links stored herein is guaranteed to raise both a chuckle and an eyebrow and, if you ever require an antidote to the relentless snowball of Net hype, this is it. Genius.

Overall: ★★★★★

Continued on page 48

This is how *Internet Explorer* copes with the FutureNet home page. Looks just the same as the *Netscape Navigator* rendering, doesn't it? High marks for Netscape compatibility.

text has finished loading. This all-in-one option gives a bit more snap to the downloading process and makes you feel it's happened quicker, even if it hasn't really.

The way *Explorer* handles graphics on the pages it downloads is also rather clever: if you find a link to a page or graphic that you want, you can save the contents straight to your hard drive, without bothering to display it in the browser first.

There are also lots of features to help you organise your favourite sites. The **Favorites** menu can contain folders and even sub-folders of sites, and you can even drag a favourite onto your Desktop if you want the ultimate shortcut.

Explorer supports most of Netscape's own enhancements, although it doesn't support the newer frames or Java scripts. The good news definitely starts fizzling out when you move away from the Web into other areas. *Internet Explorer* comes with a copy of e-mail program *Eudora Light;* while *Explorer* does handle e-mail, Microsoft clearly doesn't have much confidence in its ability.

Things are no better with newsgroups. *Explorer* takes an age to show its list, then displays them in a slow, primitive layout. As a Web browser, *Internet Explorer* is an efficient and interesting alternative to *Netscape Navigator,* with some great features – and, most importantly, it's free. But though it's good, it's no all-rounder.

INTERNET EXPLORER 2

Price: free. **Out:** now.
Requires: LCII or better, 8Mb of RAM, System 7 or later.
Contact: Microsoft at http://www.microsoft.com

MACFORMAT RATING 78%

WHAT A SOURCE!

All the browsers we looked at enable you to save pages as either text or HTML documents. The HTML document option creates a copy of the original page on your hard drive, so you can examine it to find out how clever pages were engineered.

NCSA Mosaic 2

Although born of an academic environment, *Mosaic* has enhancements that will appeal to all Net surfers, and it supports some important Netscape innovations like forms and tables. As with the other browsers, it has the basic features you've come to take for granted. However, it does have one or two features you won't find with any other browser...

Take annotations – text or audio attachments to a Web page. You see something interesting on a page and decide to add a note for a colleague. In *Mosaic* a live link to that note shows up at the bottom of the page, and you can store up to 20 notes per page, on your hard drive. It's a simple but exceedingly useful feature in an academic or business environment.

There are other nice touches. As in *Internet Explorer,* you can save a linked page to disk without having to load it in the browser. And uniquely to this program, you can view information on any file to discover its type, date and size *before* you request it – this great idea could save you many long and pointless downloads.

The interface is attractive, from the polished 3D buttons to the way the colour of followed links can be made to fade slowly with time until it's back to the original! But beyond this point, things start to look less impressive. E-mail? Sorry. Newsgroups? Um...

NCSA Mosaic is in many ways nicer to use than *Netscape Navigator,* and its annotation feature is useful. But, most seriously, it doesn't have the features of *Netscape,* and consequently struggles to produce a correct display of pages designed for its rival.

Oh dear. *Mosaic* gets itself into a bit of a pickle with the FutureNet page. It's all there, but not quite as the designers intended...

NCSA MOSAIC

Price: free. **Out:** now.
Requires: LCII or better, 8Mb RAM, System 7 or later.
Contact: NCSA at http://www.ncsa.uiuc.edu.

MACFORMAT RATING 61%

MOUNTAIN HIGH MAPS

The view of the world used on the cover of this issue and all the globes used throughout this feature are taken from the *Globe Shots CD*, a collection of royalty-free pictures from Mountain High Maps. It costs £112 and is available from Digital Wisdom Publishing. Contact them on 01223 566250 or visit their Web site at **http://www.digiwis.com**

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- ❒ FREE POP3 E-Mail account.
- ❒ FREE access to news groups. Giving access to over 13,000 active groups.

The Cost

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- ❒ The monthly recurring cost is only £8 (plus VAT). There are no hidden costs - The only additional cost is your local-rate telephone bill.

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The .net Directory

Name: Comics 'n' Stuff!
What is it? A guide to the best comics, and sites about comics, on the Web.
Where you'll find it:
http://www.phlab.missouri.edu/~c617145/comix.html
What's it like? Some of the most entertaining work you'll find on the Web is in comics form,

and this site gives you a full A to Z of what's on offer, although details on each are somewhat lacking. If your interest in comics goes beyond the casual, you can also dive into a jumplist of fan news and commentary sites about Marvel, DC and the like. Then get into a chat with other fans in the live Webchat room.
Overall: ★★★

Name: Kooks Museum
What is it? Do you really know what your neighbour gets up to at nights?
Where you'll find it:
http://www.teleport.com/~dkossy/index.html
What's it like? Ah, this Internet thing – jam-packed with nutters and all of them ready to beam down the phone lines into your humble abode. Give eternal praise then for Donna J Kossy and her catalogue of conspiracy-crazed crackpots. Spend a couple of hours at chez Kossy and you'll soon realise that Bill Gates is an emissary of Satan, electro-alchemy is a much overlooked science and the Earth is not only hollow but a secret car park for stray UFOs. And if you start to think that just one of the notions found in this excellent site is worthy of consideration, then get yourself to a shrink quick. Make that *double* quick...

Overall: ★★★★

Name: Strawberry Pop-Tart Blow-Torches
What is it? Breakfast a little bit boring these days? Time to hit that there modem...
Where you'll find it:
http://www.sci.tamucc.edu/~pmichaud/toast/toast.html
What's it like? Batman has his utility belt, James Bond has his watch-that's-really-a-laser-gun and one Patrick Michaud, author of this deranged

Worldwide chit-chat

The Net is a real global village: discover the programs that enable you to meet people from around the world.

New technologies may come and go, but the main purpose of the Internet remains the same as it was 30 years ago: more people use it to converse than for any other activity. The Net was originally created so that the American military could exchange e-mail, and since then other systems for sending messages or getting together to chat have joined this original method.

JARGON BUSTER
'Downloading' is the process of transferring a file or page from the server computer to your own, where it's either displayed on your Mac's screen or saved to the hard drive.

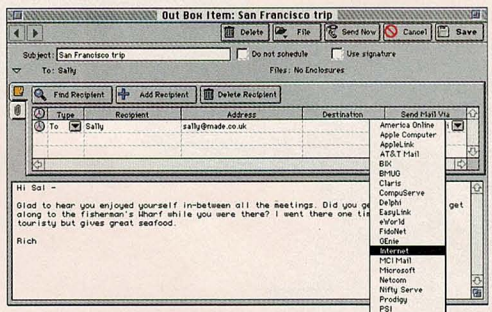
Send a message

E-mail is the most basic way of sending information across the Net and one of the easiest to learn, although the uncontrolled growth of the Net has complicated things a little. You can send a simple text message to anyone as long as you know their e-mail address. This will be something like **macformat@futurenet.co.uk** (our own e-mail address). The part before the @ symbol is the individual or organisation's name, which can be any word they like. The 'domain' comes after the @; this tells you which server computer your message will be stored on. It's perfectly possible for one person to have several accounts on different servers: MACFORMAT also has an address **macformat@cix.compulink.co.uk**.

Anyone with an Internet connection can have an e-mail address. You should be offered the opportunity when you sign up with your service provider, or your employer may be able to sort one out for you at work if your company has a direct connection. You can send and read e-mail with a simple program: you'll find *Eudora Light*, for example, when you install Microsoft's *Internet Explorer* Web browser from our CD-ROM.

What any e-mail software should offer you is the facility to compose your letters, a directory where you can store addresses you use often, and an 'In-and-Out tray' system. Your In tray shows any messages you've received but haven't read, while the Out tray stores your own correspondence, ready to send out. When you have written all the messages you want to, you can open your Internet connection, send the messages from the Out tray and shut the connection again – making sending e-mail an economical way of communicating.

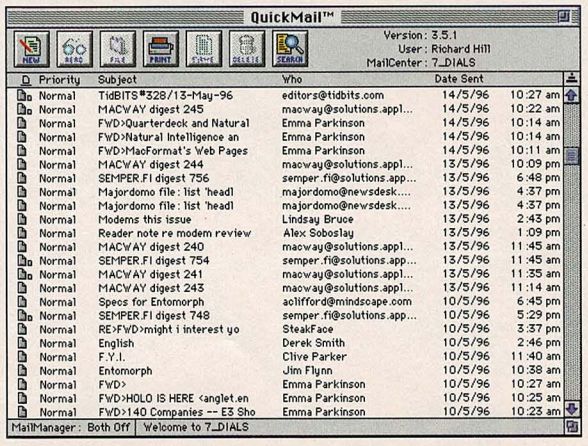
Another great use of e-mail is the mailing list. This can either be something like a news source sending out information to a wide audience which subscribes via e-mail, or a discussion group where you send in your opinions to the group's editor, who compiles the letters and sends them out to all the subscribers.



Get to know e-mail: both the *Claris Emailer* demo (above) and the popular *Eudora Light* are on our CD-ROM.

You can join a mailing list by sending a simple message to the appropriate e-mail address. Guy Kawasaki's Macway, for example, gives you the latest news releases from Apple, plus many anecdotal examples of what makes the Mac so special. The idea is that you can spread the Mac gospel with the information Guy delivers. Send an e-mail with the message **'SUBSCRIBE MACWAY <YOUR NAME>'** (replacing the '<your name>' part with your own full e-mail address) to the address **listproc@solutions.apple.com** to join 25,000 others on what Guy wittily calls the Macway EvangeList.

TidBITS is a weekly newsletter with news and reviews on Mac and Internet products. You can also view it on the Web (see page 44). Send the message **'SUBSCRIBE TIDBITS <YOUR NAME>'** to **listserv@listserv.net**


QuickMail™
Version: 3.5.1
User: Richard Hill
MailCenter: 7_DIALS
NEW
READ
FILE
PRINT
FORWARD
DELETE
SEARCH
Priority
Subject
Who
Date Sent
Normal TidBITS #328/13-May-96 editors@tidbits.com 14/5/96 10:27 am
Normal MACWAY digest 245 macway@solutions.appl... 14/5/96 10:22 am
Normal FWD>Quarterdeck and Natural Emma Parkinson 14/5/96 10:14 am
Normal FWD>Natural Intelligence an Emma Parkinson 14/5/96 10:14 am
Normal FWD>MacFormat's Web Pages Emma Parkinson 14/5/96 10:11 am
Normal MACWAY digest 244 macway@solutions.appl... 13/5/96 10:09 pm
Normal SEMPER.FI digest 756 semper.fi@solutions.app... 13/5/96 6:48 pm
Normal Majordomo file: list 'headl majordomo@newsdesk.... 13/5/96 4:37 pm
Normal Majordomo file: list 'headl majordomo@newsdesk.... 13/5/96 4:37 pm
Normal Modems this issue Lindsay Bruce 13/5/96 2:43 pm
Normal Reader note re modem review Alex Soboslay 13/5/96 1:09 pm
Normal MACWAY digest 240 macway@solutions.appl... 13/5/96 11:45 am
Normal SEMPER.FI digest 754 semper.fi@solutions.app... 13/5/96 11:45 am
Normal MACWAY digest 241 macway@solutions.appl... 13/5/96 11:35 am
Normal MACWAY digest 243 macway@solutions.appl... 13/5/96 11:14 am
Normal Specs for Entomorph aclifford@mindscape.com 10/5/96 6:45 pm
Normal SEMPER.FI digest 748 semper.fi@solutions.app... 10/5/96 5:29 pm
Normal RE>FWD>might i interest yo SteakFace 10/5/96 3:37 pm
Normal English Derek Smith 10/5/96 2:46 pm
Normal F.Y.I. Clive Parker 10/5/96 11:40 am
Normal Entomorph Jinn Flynn 10/5/96 10:38 am
Normal FWD> Emma Parkinson 10/5/96 10:27 am
Normal FWD>HOLO IS HERE <anglet.en Emma Parkinson 10/5/96 10:25 am
Normal FWD>140 Companies -- E3 Sho Emma Parkinson 10/5/96 10:23 am
MailManager: Both Off
Welcome to 7_DIALS

QuickMail is a mail program for businesses: you can exchange internal mail with your colleagues as well as sending and receiving e-mails from outside.

Talk talk

If you enjoy the to and fro of a good debate, you'll definitely want to check

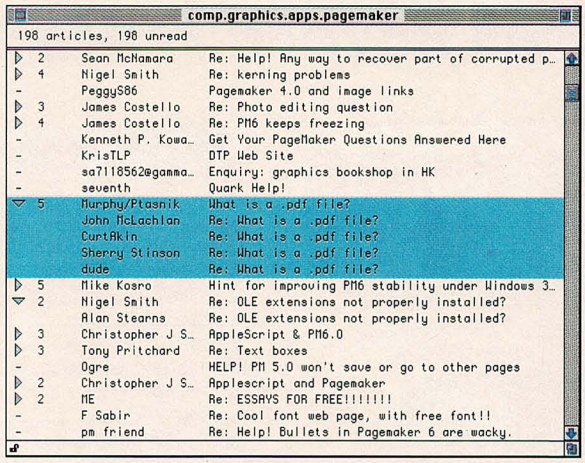
out the newsgroup area of the Net. Despite the name, it's less about providing news than about getting together with others who share your interests and enjoy chewing the fat.

There are now thousands of groups. If you can think of a subject, it's probably covered; all you have to do is find it, which isn't that easy sometimes. Newsgroups are the kingdom of the unreconstructed, old-fashioned computer buff, with names of groups built up through hierarchies distinguished by abbreviated terms. You'll find areas dedicated to **rec** (recreation), **comp** (computers) or **alt** (alternative groups), for example. Each of these major areas is broken up into subsections – **rec.arts, rec.sport** and so on – then splintered again and again until you finally have the names of each newsgroup.

comp.sys.mac.graphics is a Mac graphics group, for example, while **comp.sys.mac.games.action** enables you to meet other fans of *Marathon* and *Doom*.

When you open your Internet account, your service provider should tell you if it has newsgroups on its server. You'll need specially-designed newsgroup software to see them, but you won't necessarily find every available group on your service provider's server. It might restrict the number due to space, while some providers don't store groups where adults-only pictures are exchanged (we did say, 'think of a subject and there'll be a newsgroup for it'!), because they want to attract families. Ask your provider what its policy on newsgroups is before you join.

If you're connected, try *NewsWatcher* from our Cover CD-ROM, but be careful. You're likely to encounter the remnants of computer buffery in the way you'll see many people act in the groups. Partly because the groups are maintained on a volunteer basis, you'll find you are expected to behave in an appropriate manner. Basically, apply some common sense and consideration for others when you decide to write. There are groups where newcomers can receive advice on negotiating newsgroups, and many individual group have an FAQ (Frequently Asked Questions) document you should look at if you're at all unsure.


comp.graphics.apps.pagemaker
198 articles, 198 unread
2 Sean McNamara Re: Help! Any way to recover part of corrupted p...
4 Nigel Smith Re: kerning problems
- PeggyS86 Pagemaker 4.0 and image links
3 James Costello Re: Photo editing question
4 James Costello Re: PM6 keeps freezing
- Kenneth P. Kowa... Get Your PageMaker Questions Answered Here
- KrisTLP DTP Web Site
- sa7118562@gamma... Enquiry: graphics bookshop in HK
- seventh Quark Help!
5 Murphy/Ptasnik What is a .pdf file?
John McLachlan Re: What is a .pdf file?
CurtAkin Re: What is a .pdf file?
Sherry Stinson Re: What is a .pdf file?
dude Re: What is a .pdf file?
5 Mike Kosro Hint for improving PM6 stability under Windows 3...
2 Nigel Smith Re: OLE extensions not properly installed?
Alan Stearns Re: OLE extensions not properly installed?
3 Christopher J S... AppleScript & PM6.0
3 Tony Pritchard Re: Text boxes
- Ogre HELP! PM 5.0 won't save or go to other pages
2 Christopher J S... Applescript and Pagemaker
2 ME Re: ESSAYS FOR FREE!!!!!!!
- F Sabir Re: Cool font web page, with free font!!
- pm friend Re: Help! Bullets in Pagemaker 6 are wacky.

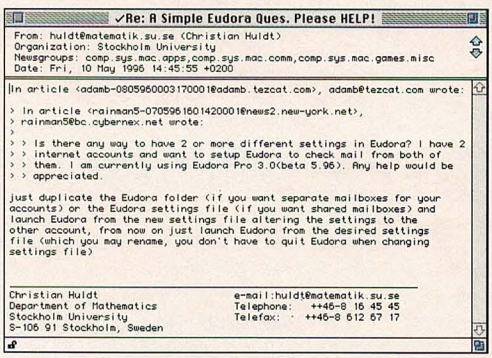
NewsWatcher (included on our CD-ROM) organises the messages within each newsgroup into threads you can follow. One thread is highlighted above.

Get together

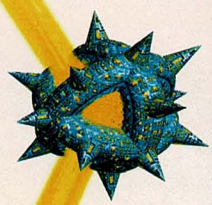
It's possible to use the Net to engage in live, or at least nearly-live, conversation with people around the world. Chat software systems enable your Mac to log into a discussion group and see text appear as soon as someone, somewhere types it in. As is the trend with other Net areas, the idea is being incorporated into the World Wide Web – for example with Quarterdeck's *Global Chat*, a free piece of software you can obtain from the firm's site at **http://www.qdeck.com/chat/**

Global Chat uses an existing system called Internet Relay Chat but incorporates it into the Web, so you can simply click on a Web link to enter a discussion area. You'll first need to set up the program as a helper application in your Web browser; the details of how to do this are on the Quarterdeck site or in your browser's documentation.

While you're downloading *Global Chat*, you'll also find a list of talk events and groups you can enter day or night. You'll soon experience the thrill of picking your code-name, entering a group and meeting someone on the other side of the world.

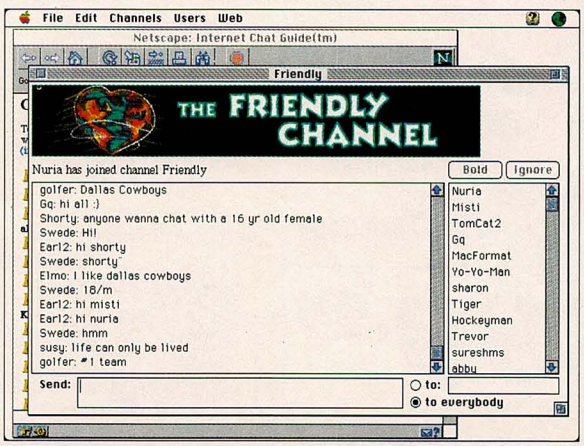

✓Re: A Simple Eudora Ques. Please HELP!
From: huldt@matematik.su.se (Christian Huldt)
Organization: Stockholm University
Newsgroups: comp.sys.mac.apps,comp.sys.mac.comm,comp.sys.mac.games.misc
Date: Fri, 10 May 1996 14:45:55 +0200
In article <adamb-0805960003170001@adamb.tezcat.com>, adamb@tezcat.com wrote:
> In article <rainman5-0705961601420001@news2.new-york.net>,
> rainman5@bc.cybernex.net wrote:
> > Is there any way to have 2 or more different settings in Eudora? I have 2 internet accounts and want to setup Eudora to check mail from both of them. I am currently using Eudora Pro 3.0(beta 5.96). Any help would be appreciated.
just duplicate the Eudora folder (if you want separate mailboxes for your accounts) or the Eudora settings file (if you want shared mailboxes) and launch Eudora from the new settings file altering the settings to the other account, from now on just launch Eudora from the desired settings file (which you may rename, you don't have to quit Eudora when changing settings file)
Christian Huldt
Department of Mathematics
Stockholm University
S-106 91 Stockholm, Sweden
e-mail:huldt@matematik.su.se
Telephone: ++46-8 16 45 45
Telefax: ++46-8 612 67 17

You should quote relevant excerpts from previous messages when responding in a newsgroup.



WHERE TO START?

You'll find an introductory list of some useful Mac newsgroups on page 52.



This is *Global Chat*. It may not be the most rivetting conversation you've ever had, but no-one said the Net had to be used productively – it's all up to you.

piece of snack terrorism, has his Kellogg's Strawberry Pop Tarts. Take one packet of these innocent Yankee treats, add a normal household toaster, a sprinkling of insanity and *voila* – instant flame thrower and the perfect way to collect your house insurance. Yes, it's pointless, and let's hope illegal in most right-thinking countries, but then so is scanning in a picture of your dog and calling your home page 'Rover's Return'.

Overall: ★★★

Name: **StrangeMag**
What is it? X-Files be damned, the *real* truth is in here... Somewhere.
Where you'll find it:
http://www.cais.net/strangemag//home.html
What's it like? Strange by name, completely and utterly bonkers nutsville by nature. With 99% of Planet Earth currently fixated by the exploits of

Mulder and Scully, this is *the* place to start your on-line investigation of the unexplained, the unimaginable and the downright unbelievable. Giant shrimps in the basement, South American goatsuckers (don't ask...), the Swedish second cousin of Nessie... Everything remotely paranormal is covered with a mix of scepticism and the desire to believe so the next time your theories on the tooth fairy are sneered at by your mates, you know where to take 'em.

Overall: ★★★★

NEWS, SOCIETY AND CULTURE

Name: **Vegetarian Pages**
What is it? The site for those who prefer kidney beans to kidneys.
Where you'll find it: **http://www.veg.org/veg/**
What's it like? If you saw *Babe* and didn't fancy bacon sarnies anymore, don't worry – on-line

help is at hand. Comprehensive in the extreme, this page has just about everything to keep you eating well – all manner of cookbooks, famous vegetarians, Vegan Bikers... Yep, it does get more than a bit spurious once the recipes and restaurant listings are complete but, as a catalogue of healthy living, it really can't be beaten. Or eaten. Anyone for tofu?

Overall: ★★★★

Name: **Yahoo's Black Thursday Page**
What is it? Netheads unite! You only have the US government to convince...
Where you'll find it:
http://www.yahoo.com/Society_and_Culture/Civil_Rights/Censorship/Censorship_and_the_Net/Black_Thursday
What's it like? If you were sniffing around in Yahoo! on February 9th, you'll have a pretty good idea. Black Thursday, as it was aptly named, was the day that Yahoo! turned the lights out, a self-imposed 48 hours of Web page mourning to mark President Clinton's signing of the Telecommunications Reform Bill – a law that could

Continued on page 52

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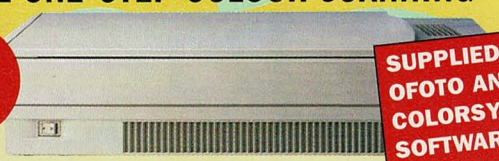

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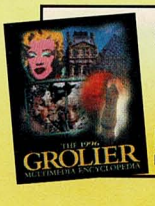

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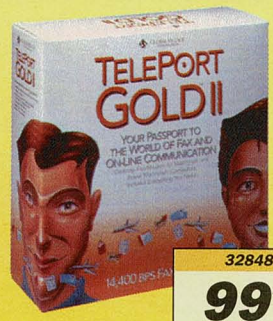

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The net Directory

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limit your freedom of expression on the Net. Pages all over the Web adopted black backgrounds in protest at legislation that meant materials legally available in book stores and libraries would be illegal if posted on Web sites or newsgroups. Go here and feed your head. While you still can...

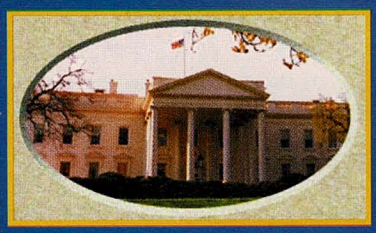
Overall: ★★★

Name: **Welcome to The White House**

What is it? Your chance to stay at the most exclusive bed-and-breakfast in the Western Hemisphere.

Where you'll find it:
http://www.whitehouse.gov/WH/Welcome.html

What's it like? With the US election race slipping into second gear, the always impressive White



House page has recently had a fresh coat of HTML paint to include the recent State of The Union address (in both text and audio versions). There's just about everything you could want here – a hefty slice of history (The Virtual Library), a mass of information (The Citizen's Handbook), something for the kids (White House For Kids – hosted by Bill's cat, Socks...) plus, of course, a sound clip of our Hilary welcoming you to her virtual ranch. Just don't mention Whitewater, please...

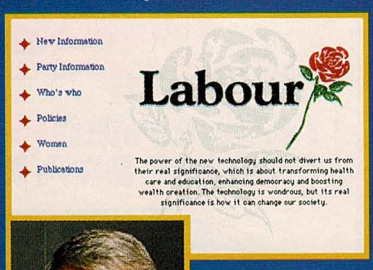
Overall: ★★★★

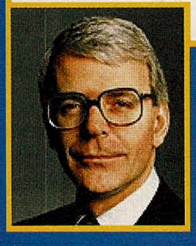
Name: **British Politics**

What is it? Can't wait till *Newsnight*? Get the latest political hype here...

Where you'll find it:
http://www.atlanticdesigns.co.uk/sean/politics.htm

What's it like? Conservative, Labour, Liberal Democrats – unsurprisingly, they've all jumped on the Net bandwagon in search of the Yoof vote


New Information
Party Information
Who's who
Policies
Women
Publications
Labour
The power of the new technology should not divert us from their real significance, which is about transforming health care and education, enhancing democracy and boosting wealth creation. The technology is wondrous, but its real significance is how it can change our society.



and this jam-packed Web site provides links to all these pages and more. In the interest of democracy, just about every political party with an on-line presence is covered – from Plaid Cymru and the Referendum Party to the British National Party – plus a wealth of issue related sites. Hardly the most intoxicating page out there in Web Land but, for actually using all that information stuffed on the Net (plus not mentioning the Monster Raving

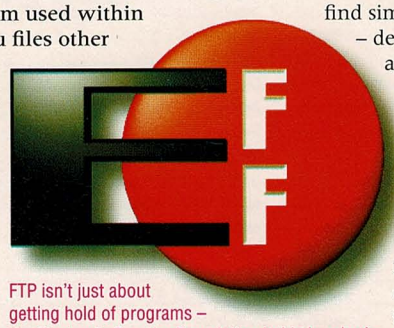
The Net superstore

The Internet contains thousands of programs and data files you can pull onto your Mac with ease.

PUBLIC ACCESS

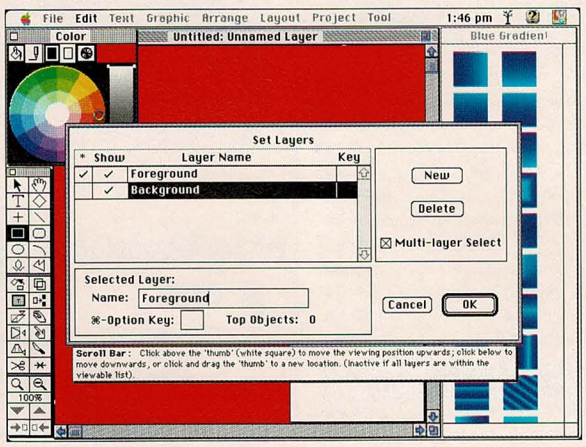
You can visit the sites we've mentioned here by using anonymous FTP, an automatic system where your FTP program enters the user name 'anonymous' and the password of your e-mail address when challenged by the server.

Of all the abbreviations associated with the Net, FTP is one of the easiest to decipher. It stands for File Transfer Protocol – simply a method of transferring files between computers. It's the system used within the Web to send you files other than the Web pages and pictures themselves – click on a link to receive a video slip or piece of software, and you'll often see the address in your browser's location line change to an FTP site. But the real power of FTP is exposed when you abandon the completeness of your browser to use a dedicated FTP program. This will give you access to the many FTP sites on computers all over the world.



FTP isn't just about getting hold of programs – the Electronic Frontier Foundation holds hundreds of publicly available documents on one site.

You can think of FTP sites as simply another storage medium like floppy disks or CD-ROMs. You'll certainly find similar things on each – demos, shareware and freeware programs, clip art and photos, fonts and so much more. Where FTP has the advantage is in topicality – you'll typically find new programs or updated versions on the Net before shareware libraries are able to offer them on disk or they appear on magazine CDs. FTP gives the program authors – and you – the power to distribute material far and wide as soon as it's finished.



Sharedraw is typical of the top-quality shareware you can find on the Net – once you know where to look.

We've put two of the finest FTP programs you can get on the Cover CD-ROM this issue. *Fetch* and *Anarchie* each enable you to wander round the folders on the many public FTP sites, and you can also place files within them. Not all areas are open to the public: the site administrators can keep private areas protected by passwords. Businesses can set up their own FTP areas to receive documents too big to send by e-mail.

Discovering the thousands of programs stored on the Net can be a little like becoming a child in a toy shop

WHERE TO START

Here are a few FTP and newsgroup areas you can try. You'll find a list of pre-set bookmarks for good FTP areas in *Fetch*, on our CD-ROM this issue, while *NewsWatcher* can display the full list of newsgroups stored on your service provider's server. It's perfectly possible there'll be 15,000 or more to go through, so we thought you might like to have some names of Mac newsgroups handy!

FTP SITES

■ **Apple Info**
ftp.info.apple.com
Essential utilities for your Mac – free software like *Cyberdog* and System updates and fixes as they appear. The files are typically pretty big, so it will take a while for them to download.

■ **Electronic Frontier Foundation**
ftp.eff.org
FTP isn't just about grabbing software: help yourself to information on civil liberties and censorship issues in this well-organised, intelligent site.

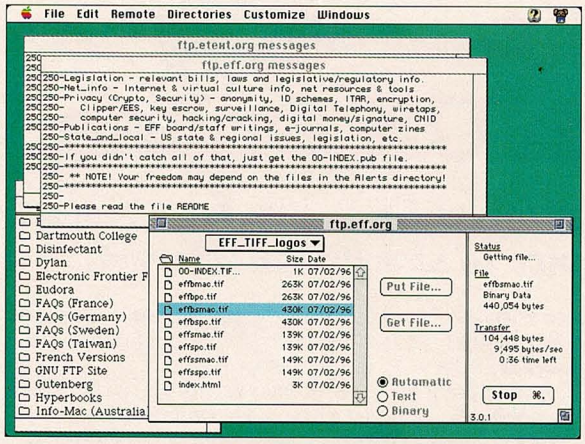
■ **Imperial College**
src.doc.ic.ac.uk
A superb site at London's Imperial College. You'll find mirrors of two huge Mac areas, Umich and Info-Mac, plus lots more.

■ **SUNET**
ftp.sunet.se
A Swedish site containing Mac shareware, loads of image files and much more.

■ **Symantec**
ftp.symantec.com
Technical information, updates and fixes for Symantec programs like *Norton Utilities* on one of many public areas run by Mac software companies as part of their service.

NEWSGROUPS

■ **alt.sys.mac.newuser-help**
Any questions? Start here.



Fetch is a great program for grabbing stuff from FTP sites. You'll find it on our Cover CD, along with a list of sites to get you started.

again: you'll want to help yourself to everything. But FTP is perhaps the area where you'll feel the current limitations of the Internet the most. The Net wasn't designed to deal with the volume of transmissions it now has to carry each day, so data files can travel around more slowly than you might expect.

This affects many parts of the Net, but it can be enormously frustrating to watch a 2Mb file downloading at only 1K or 2K a second – and it can also cost you a lot of money. You will need to give some thought to the best way to get the material you want. If you're looking for a wide selection of programs, it's going to be far more economical to use a source like the MACFORMAT Cover CD-ROM.

One way you might speed things up is to use 'mirror sites'. The Info-Mac Archive, for example, is a well-stocked and hugely popular area – so popular that the original is frequently so clogged up it's not worth the effort of using it. But any material placed on Info-Mac automatically makes its way onto sites on other computers, which mirror the contents and layout of the original. As Info-Mac is located in the US, you might be better off trying a European mirror. The names of these are often held as bookmarks within your search software, or you can find them through visiting comparable Web sites and checking for more information.

We've listed a few top-notch FTP sites in the box below, along with a selection of newsgroups to get you started in that area. If you prefer, you can visit either of these areas within your Web browser. In *Netscape* or *Internet Explorer*, for example, type **ftp://** followed by the address of your choice below; for newsgroups, type **news:** followed by the group name.

Companies like Ambrosia use FTP and the Web heavily to make sure you get excellent games like *Barrack*.

GET INFO

Make sure your service provider gives you the information you need to use *every* area on the Net: you'll need its mail and news server names as well as the Web server's.

- **comp.sys.mac.misc**
General chat about the Mac.
- **comp.sys.mac.advocacy**
How good is the Mac compared to other machines? How well is Apple marketing the Mac?
- **comp.sys.mac.announce**
News snippets.
- **comp.sys.mac.apps**
User problems and solutions for all sorts of Mac software.
- **comp.sys.mac.comm**
Internet and modem talk.
- **comp.graphics.apps.pagemaker**
Hints and tips, debate and announcements on Adobe's DTP program.
- **comp.sys.mac.graphics**
Yes, there's both a comp.graphics area and a specific Mac graphics group – it pays to explore the group list thoroughly.
- **comp.sys.mac.games.action**
Games discussion is broken into several different genres, plus an area for announcements and a more general site called 'misc':
- **comp.sys.mac.games.adventure**
- **comp.sys.mac.games.announce**
- **comp.sys.mac.games.flight-sim**
- **comp.sys.mac.games.misc**
- **comp.sys.mac.games.strategic**
- **comp.sys.mac.hardware.storage**
If you want to talk about hard drives all day, here's the spot.
- **comp.sys.mac.hardware.video**
- **comp.sys.mac.hypercard**
Discussing Apple's multimedia creation kit.
- **comp.sys.mac.portables**
All about the PowerBook range.
- **comp.sys.mac.printing**
Printing problems? Check this group.
- **comp.sys.mac.programmer.help**
If you're only an F at C++, you can ask for help among ones who know.
- **comp.sys.mac.wanted**
The classified ads of Mac newsgroups.

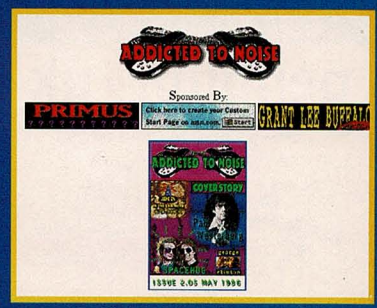
Loony Party), it deserves your vote.
Overall: ★★★

Name: **FutureNet UK News**
What is it? Shameless self-plugging or valid Web information – you decide.
Where you'll find it:
http://www.futurenet.co.uk/
What's it like? In a sea of *Star Wars* home pages the news comes as a breath of fresh sanity –

which, given the latest crop of massacres, atrocities and war zones still flaring around the world, is saying something. Courtesy of news and sport agency UK News (responsible for the contents of teletext, 32 evening newspapers and a whole host of radio stations), FutureNet brings you regularly updated stories as they break, from top political shenanigans to royal family tat. Add on sports coverage and half-hourly updates on the stock market, courtesy of *The Financial Times*, and you'll never have to look at News Bunny again. And thank God for that, eh?
Overall: ★★★★

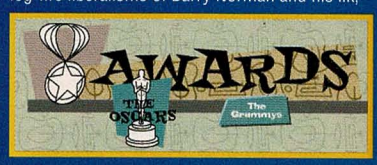
ENTERTAINMENT

Name: **Addicted To Noise**
What is it? On-line music magazine.
Where you'll find it: **http://www.addict.com/ATN**
What's it like? Using some of America's finest music writers including Greil Marcus and Dave Marsh, Addicted to Noise is a beautifully presented and constantly updated news and



features magazine that manages to be bold, authoritative and wonderfully entertaining at the same time. Despite the inevitable US-bias, the whole rock transit is wheeled out and you're just as likely to find an article on Beck as you are Bruce Springsteen.
Overall: ★★★★★

Name: **Mr Showbiz**
What is it? Movie criticism with the soul of a razor blade.
Where you'll find it:
http://web3.starwave.com:80/showbiz/
What's it like? Single-handedly extinguishes the log-fire liberalisms of Barry Norman and his ilk,

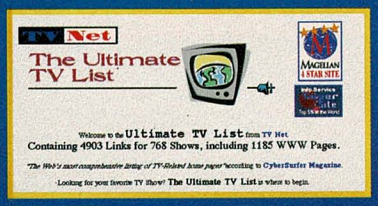


in favour of a more cutting edge approach that never shies away from the whoosh of the barbed comment or the simple slag-off in the face of popular consensus. Divided into sections ranging from reviews to current box office figures, Mr Showbiz never shows Hollywood undue respect and yet always seems to know exactly what's going down on Tinseltown streets. One delightful added touch is the way you can customise the site, deciding which contents you should be offered according to your preferences.
Overall: ★★★★★

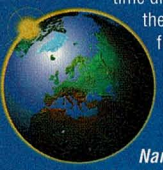
Continued on next page

The .net Directory

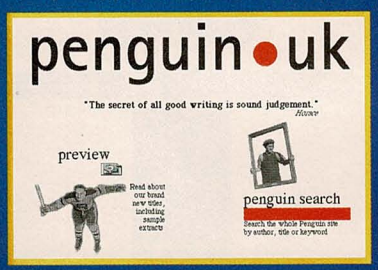
Name: **The Ultimate TV List**
What is it? A huge, rampant, good, bad and ugly list of world-wide cathode ray experiments.
Where you'll find it:
http://tvnet.com/UTVL/utvl.html
What's it like? In keeping with television's inconsistency, both brilliant and dreadful. Whether it's the silicon-on-sand of *Baywatch* or the spookiest


TV Net
The Ultimate TV List
MAGELLAN 4 STAR SITE
Welcome to the Ultimate TV List from TV Net
Containing 4903 Links for 768 Shows, including 1185 WWW Pages.
"The Web's most comprehensive listing of TV-related home pages" according to CyberSurfer Magazine.
Looking for your favorite TV show? The Ultimate TV List is where to begin.

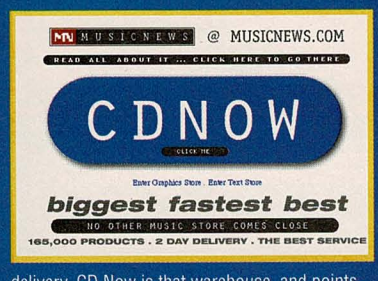
episode of the *X-Files*, you're sure to find something here to quench your thirst for the smaller screen. A to Zs don't come more exhaustive than this, and you can spend considerable amounts of time discovering long lost favourites from the '60s, '70s and '80s, then amusing friends and family with your powers of recognition. It's like Sky Gold, gone ballistic.
Overall: ★★★★



Name: **Penguin UK**
What is it? A vast and decidedly modern on-line catalogue
Where you'll find it: **http://www.penguin.co.uk**
What's it like? Bookstores are the sort of places that cause memory loss and confusion. You go in, forget why you did and wander round desperately trying to remember what you wanted to buy. No more. Well designed, with tasteful graphics, Penguin's site gives you the opportunity to browse, read reviews and purchase from a massive array of titles without raising a sweat. Also included is a history of the giant publishing house and a section on Penguin CD-ROMs. The Internet at its convenient best.
Overall: ★★★★


penguin•uk
"The secret of all good writing is sound judgement."
Horace
preview
Read about our brand new titles, including sample extracts
penguin search
Search the whole Penguin site by author, title or keyword

Name: **CD Now**
What is it? Forget the queue at the Rekka Store, this is the place to buy your CDs.
Where you'll find it: **http://cdnow.com/**
What's it like? Imagine an aesthetically-pleasing warehouse that contains every music CD you've ever wanted and promises a two to six day


MUSICNEWS @ MUSICNEWS.COM
READ ALL ABOUT IT ... CLICK HERE TO GO THERE
CDNOW
CLICK ME
Enter Graphics Store . Enter Text Store
biggest fastest best
NO OTHER MUSIC STORE COMES CLOSE
165,000 PRODUCTS . 2 DAY DELIVERY . THE BEST SERVICE

delivery. CD Now is that warehouse, and points towards a world in which going out of the house is an unnecessary waste of energy. But before you balk at the potential lazyitis of the concept, spare a thought for the convenience factor. You

Try the Net FREE with UK Online

MACFORMAT and service provider UK Online have teamed up to offer you this chance to sample the Internet.

You've seen what the Internet has to offer; now you can try it for yourself. If you have a Mac and a modem connected to a working phone line, you can explore the Internet free of charge for 30 days, courtesy of service provider UK Online.

UK Online offers a full service of access to the Web, e-mail and newsgroups – and now's your chance to try it out for free.

One of Britain's newer Internet providers, UK Online offers a service suitable for the whole family. You can get a connection just for yourself or include the rest of the family as well. Whichever you choose, you'll receive an attractive bundle of software to get you connected and start you using the Net, including Microsoft's *Internet Explorer* for browsing the Web. As a subscriber, you'll be able to send and receive e-mail to and from friends and businesses, engage in vigorous debate in the newsgroup area and view the whole of the World Wide Web, with its thousands of pages of instant information. Because UK Online is for the whole family, it's been careful to ensure that the newsgroups it offers are suitable for children, so you can sleep soundly at night, secure in the knowledge that the worst that the kids can do is bankrupt you with the phone bill.

As part of the deal, you get exclusive access to UK Online's own magazines, featuring news and features for everyone in the family.

What's more, if you want to create your own Web pages, UK Online offers you as much Web server space as you want in which to create your own publication (non-commercial use only).

UK Online's single package is ideal if you're a light Net user or want to dip a toe in the water. It gives you 10 hours a month of on-line time and a single e-mail address for £9.99 a month.

The family service is recommended if you're a heavy Net user or want your family to get on-line with you. You get unlimited on-line time and up to four e-mail addresses for only £14.99 a month.

Whichever service you go for, you'll get access to UK Online's exclusive Web magazine, full of news and chat, and help with getting connected if you need it. If you want to sample what UK Online offers, you can do so through the MACFORMAT CD-ROM, with no obligation to sign up.

30 days free!

To get your free 30 days' access with UK Online, you'll need to install the software in the UK Online and *Internet Explorer* folders on our CD-ROM. Please note: the trial service does not offer e-mail or newsgroup facilities.

A ReadMe file offers you a compre-

If you want your children to enjoy the Net too, you can use UK Online's services with the certainty that it's all in the best possible taste.

hensive guide to getting set up, and if you need more help you can call UK Online's technical support hotline on 01749 333366 (technical enquires only, please). The lines are open seven days a week between 9am and 11pm.

For this offer, you'll need to enter a special user name and password as a MACFORMAT reader, which is different from the names mentioned in the set-up notes on the CD. Your user name should be **macformat** and your password is **trial**.

You can use the specially set up MACFORMAT password to get your free 30 days. And if you're one of the first 25 MACFORMAT readers who decide to sign up for the full UK Online £14.99 family package, you'll receive it at only £7.50 for the first two months! That's an extra saving of £15. Signing up is easy; for more details on the special offer or the rest of UK Online's services, see its Web site at **http://www.ukonline.co.uk/** or contact the firm on 01749 333333.

Growing pains

If the Net is the future, what of the future of the Net? The wave of new Net technologies aren't just gimmicks – they are weapons in a war for control of the Net.

The Internet has a huge potential. It offers you the chance of electronic information and entertainment at your fingertips, wherever you are. But sometimes the Net can be a pain to use – you will spend time wanting to tear your hair out as a Web page

Netscape, the firm behind the leading Web browser, is making all the right moves to stay at the centre of events as the Web grows.

refuses to appear, or the downloading of a file through FTP seems to take forever.

Like our delightful British motorways, the Net is suffering from being too popular – the equivalent of millions of people on the M25. There are ways you can improve your access: programs like *Netscape Navigator* are optimised to download material as quickly as possible, for example. If you

There are several compelling reasons, including the Pippin TV Web browsing device, why Apple can be an Internet leader. And it now wants to be!

can log onto the Net at the right times of day, it will be faster. Many sites tend to slow down during lunchtime as people hook up during their break. Early evening can get busy as the West Coast of the United States wakes up and logs on. And while most people plug a modem into the back of their computer and use a phone line to connect, others are lucky enough to have a direct connection, often through work. If your workplace or college has an Internet server, you may be able to go through that to get a faster connection.

The Net itself is part of the problem. Because of the patchwork fashion in which it's been assembled, the Internet still relies at its heart on old ideas and old technology. Take HTTP, the system used to transfer Web page information to your Mac. The way it works is that your Mac contacts the server storing the Web page and any images for that page. Your Mac downloads the HTML code and gets to work, going through the instructions and carrying them out. Each time it reaches an instruction to display an image, it contacts the server again and downloads that file.

This seemed like a good idea when HTTP was first devised, because of the

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Sun's Worldwide Java Developer Conference
May 29-31, 1996 • Moscone Convention Center • San Francisco, CA
JavaOne℠: Sun's Worldwide Java Developer Conference℠
May 29-31, 1996
Moscone Convention Center, San Francisco, CA
Conference News
Registration
Mailing List

The Net programming language Java is attracting enough attention from developers and users alike to make it a serious force on the Internet.

limitations of the technology and the small scale of the Net. But today you find your Mac has to send a dozen messages to a computer somewhere in California, just so you can download a single page.

A solution to this particular drawback is in the works. HTTP-NG (HyperText Transport Protocol – Next Generation) is an idea in development from the World Wide Web Consortium. (This is the organisation that sets the official standards for the Web – as distinct from Netscape, the company which has started setting the unofficial standards most people use anyway.) HTTP-NG simply downloads all the information for each page at once, rather than a piece at a time, saving time and demand on the server immediately.

But in the longer term, the com-

Continued on next page

THE CONTENDERS

There are a number of companies that are becoming the aristocracy of the Internet – the people everyone else wants to be associated with as they launch their own projects. These are the names you'll be hearing a lot more about as the Net takes shape:

NETSCAPE

Netscape is responsible for *Navigator*, the Web browser that has brought together so many fractured areas of the Net to make a coherent whole. Now the company is trying to make sure that successive versions of *Navigator* maintain its predominance by adding more multimedia features.

SUN

Sun Microsystems is behind Java, the Net programming language that everyone is talking about. Java 'applets' are small programs that you can use in combination with each other to create powerful suites which can do any Net-related task you want.

APPLE

Apple is really only just realising the potential of its armoury of ideas and technologies, including QuickTime video, compact OpenDoc modular software, innovative devices like Pippin and an innate understanding of what ease-of-use really is. See this issue's News pages for details of its new Net strategy.

get biographies, album reviews, track listings and an inexpensive stress-free shopping experience with products landing on your doorstep in a matter of days. Just imagine how many more albums you'll buy.

Overall: ★★★★★

LEISURE

Name: **The Entertaining Macintosh**
What is it? The authoritative reference of games for the Mac.
Where you'll find it:
http://www.princeton.edu/~pjcreath/macgames/
What's it like? An absolutely huge rundown of every known Mac game, the company that made it and their home page, phone number, fax number, e-mail address and quite possibly the

The Entertaining MACINTOSH
Welcome to The Entertaining Macintosh, the authoritative reference of games for the Macintosh!
We have:
Free Speech Online
Blue Ribbon Campaign

current marital status of each and every one of their employees. Everything is ultra user-friendly and hyperlinked and many of the sites have downloadable demos so you can check the game out before you decide to buy it. The games are categorised both by genre and ny title, and the site is both exhaustive and essential.

Overall: ★★★★

Name: **The Games Domain**
What is it? The largest games related site on the WWW
Where you'll find it:
http://www.gamesdomain.co.uk/
What's it like? Boasting a more than useful search engine, The Games Domain offers reviews, direct downloads, competitions, FAQs, walkthroughs, electronic magazines, a games

programming page and everything you could possibly require if you're a serious Mac gamer. With sites for three countries – the UK, the US and Russia – this is world-spanning *Doom*-monstering at its best. Simply type in the title of the game you're looking for and wait for the floodgates to open.

Overall: ★★★★★

Name: **The Macintosh Gamers Ledge Homepage**
What is it? A Mac-only game site.
Where you'll find it:
http://www.gamepen.com/ledge/mac/
What's it like? Smaller and less colourful, this site boats all the usual reviews, demos and Mac gamers news, as well as introducing forums where you can exchange thoughts, discuss various topics and help other game-players with your input. The Ledge is also packed with industry information, and the reports from conven-

Continued on next page

The .net Directory

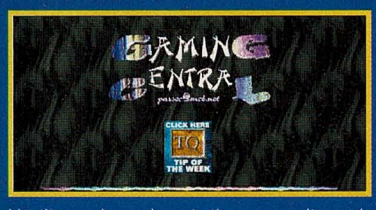
MAC
The Gamer's Ledge
4/29/96 - Thank you all for being really patient during our moving process. All future additions will take place at the below address. This page you see now will remain until our new address is 100-percent permanent.
http://www.gamepen.com/ledge/mac/
DOS and Windows gamers should also check out your new Gamer's Ledge for related gaming information.
What's NEW!
<- Last updated 4/29/96 ->
MAC GAME INDUSTRY NEWS
REVIEWS page
DEMOS page
UTILITIES/UPDATES
PUBLISHER SITES
CONTACT INFORMATION
Send FEEDBACK/SURVEY

tions like Entertainment Expo in LA are both informative and revealing. An ideal place to keep your finger on the pulse.
Overall: ★★★★

Name: **Macintosh 3D Game Resources**
What is it? Better known as Dave Coufal's game page.
Where you'll find it:
http://www.mit.edu:8001/afs/athena.umit.edu/user/d/c/dcoufal/www/marathon.html
What's it like? As well as linking you to the excellent Marathon Central and a number of other game pages, Dave Coufal has more *Doom* than a group of clinically depressed existential-

ists in a train tunnel. Walkthroughs, WADs, cheat codes and the inevitable links to Id Software's home page and DoomGate, the home of monster-blasting on the Internet. The site will also enable you to access to many chat zones such as **alt.games.descent** and **comp.sys.mac.games.announce.** As Dave puts it, an 'age of commonplace miracles' lives among these pages. Drop in for more than just tea and a chat.
Overall: ★★★★

Name: **Gaming Central**
What is it? A gaming magazine with added flair.
Where you'll find it:
http://www.mcb.net/parsec/parsec8.html
What's it like? Bamboo-type graphics and attractive design help to give Gaming Central an



identity way beyond most other games sites and a friendly page-turning appeal. The pages are used to collect previews, demos and cheats for the most up-to-date releases, which are then reviewed with all the Zeitgeist verve of those who know. The news section shows a team who are truly on top of their game, and competitions add to the magazine appeal. No surprise then to learn that this is created *by* die-hard gamers *for* die-hard gamers.
Overall: ★★★★

■ Clive Parker is Technical Editor on *.net: the Internet magazine*, Mike Goldsmith is Staff Writer on *.net Directory* and Gil Gillespie is a *.net Directory* regular. Richard Hill is News Editor on MACFORMAT, as if you didn't know.

ORACLE

The first firm to really push the idea of a low-cost, simplified Network Computer, Oracle may still find that other firms are better placed to take advantage of the concept.

ADOBE

Using its font expertise to the full, Adobe seems certain to set the rules that govern how type should work on the Net.

MACROMEDIA

The maker of leading multimedia creation program *Director* is battling it out with Adobe and late starter Quark to try to make sure you create your Net material using its software.

MICROSOFT

Like Apple, the software giant is coming up with ideas for video and component software and is busy integrating the Net into its Windows operating system. But despite its clout, can it be innovative enough to set the pace?

munications network – the actual cables that information flows through – needs improving. BT and other global telephone companies are investing hundreds of millions of pounds into digital networks, which can carry more information more quickly. The phone system will intermingle with speedy cable TV networks to offer you hundreds of times the amount of information you can get now, and the Net can only benefit from this. If you think the Internet is big now, just wait – its Golden Age is still yet to come.

Adobe's Portable Document Format is to be developed to offer a wider variety of type designs and text style functions on the Web page.

The promise of the Net is some years off being fulfilled, but that won't stop people thinking about the future. Everyone seems to agree that the Net will become a rich, involving environment of video, animation and music; but who decides how it will all work? What you're seeing today, with continual launches of new products, ideas and counter-ideas, is a war to assume control of the Net and establish the standards for everyone else to follow.

Microsoft is playing a very active role in the development of the Net and predicting great things, but can it inspire people to follow its lead?

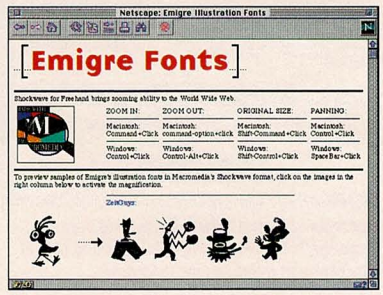
New directions

The future of the Net, or rather our vision of it, is continually being redefined. It may be that you end up not using your Mac as your main Internet source at all. Perhaps you'll start to use the Net through your TV at home, or pull out a small device from your pocket to access the Net on the move.

Apple is one firm looking at these new directions; it's already created the Pippin device for using in your living room. Now it's joining the Network Computer or NC initiative. The NC is a concept devised by business corporation Oracle: it's a much simpler computer than you're used to today, and

You may never have heard of Oracle, but it's got a strong idea – the Network Computer – and enough industry support to make it a reality.

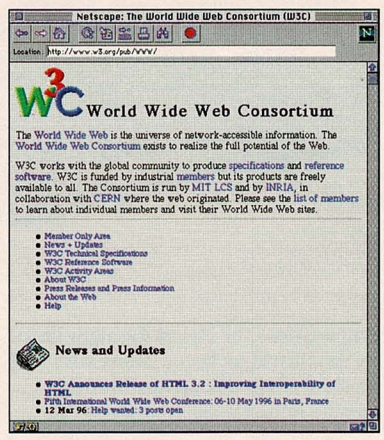
therefore much cheaper. It has the basic ability to connect to the Net and download the programs and data it needs from there. Oracle sees the NC idea spinning off to offer you video phones, cable TV boxes and computers that all give you access to the Net. Apple is working with Oracle, IBM, Sun and Netscape to produce the basic specification that NC devices will follow. Software companies are preparing


Netscape: Emigre Illustration Fonts
Emigre Fonts
Shockwave for Free hand brings zooming ability to the World Wide Web.
ZOOM IN:
ZOOM OUT:
ORIGINAL SIZE:
PANNING:
Macintosh: Command-Click
Macintosh: command-option-click
Macintosh: Shift-Command-Click
Macintosh: Control-Click
Windows: Control-Click
Windows: Control-Alt-Click
Windows: Shift-Control-Click
Windows: Space Bar-Click
To preview samples of Emigre's illustration fonts in Macromedia's Shockwave format, click on the images in the right column below to activate the magnification.

Macromedia's Shockwave turns Navigator into a full multimedia program, as in this example at **http://www.emigre.com/EShock.html**

for the Net becoming a bigger part of daily life – Now Software, for instance, has announced a Net-aware version of its leading personal organiser software.

The stage is set for more exciting developments as the Internet becomes more essential, not just to your Mac activities but to the way you relax, shop and get hold of entertainment. And MACFORMAT will make sure you're kept informed of the latest changes, as we all embark of the technological ride of our lives.


Netscape: The World Wide Web Consortium (W3C)
Location: http://www.w3.org/pub/WWW/
World Wide Web Consortium
The World Wide Web is the universe of network-accessible information. The World Wide Web Consortium exists to realize the full potential of the Web.
W3C works with the global community to produce specifications and reference software. W3C is funded by industrial members but its products are freely available to all. The Consortium is run by MIT LCS and by INRIA, in collaboration with CERN where the web originated. Please see the list of members to learn about individual members and visit their World Wide Web sites.
Member Only Area
News + Updates
W3C Technical Specifications
W3C Reference Software
W3C Activity Areas
About W3C
Press Releases and Press Information
About the Web
Help
News and Updates
W3C Announces Release of HTML 3.2 : Improving Interoperability of HTML
Fifth International World Wide Web Conference: 06-10 May 1996 in Paris, France
12 Mar 96: Help wanted: 3 ports open

The World Wide Web Consortium sets the standrards for the Web – but can it keep pace with the rate of technological change?

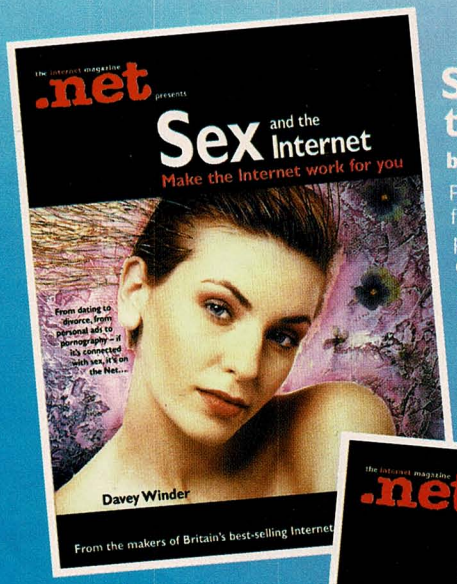
Continued on page 58

the internet magazine

.net

NEW!

presents

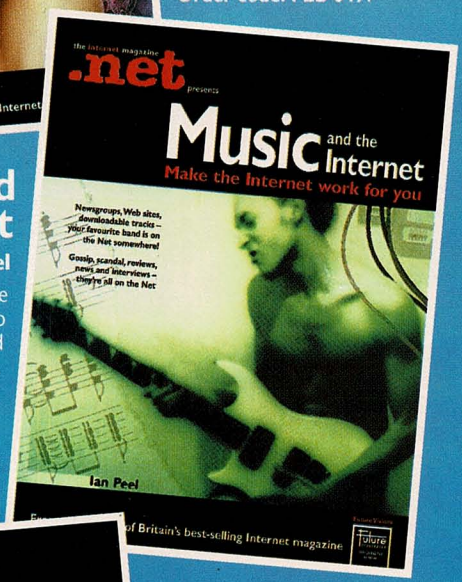

.net presents
Sex and the Internet
Make the Internet work for you
From dating to divorce, from personal ads to pornography – if it's connected with sex, it's on the Net...
Davey Winder
From the makers of Britain's best-selling Internet

Sex and the Internet

by Davey Winder

From dating to divorce, from personal ads to pornography – if it's connected with sex, it's on the Net. Davey Winder is in the words of the BBC , "the UK's foremost guide to the Internet".

Order code: FLB 0497

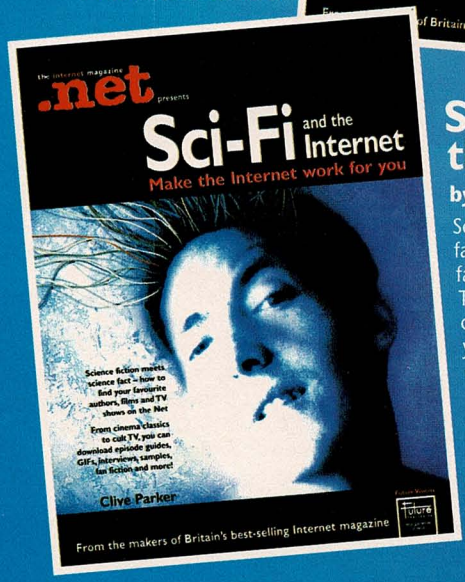

.net presents
Music and the Internet
Make the Internet work for you
Newsgroups, Web sites, downloadable tracks – your favourite band is on the Net somewhere!
Gossip, scandal, reviews, news and interviews – they're all on the Net
Ian Peel
of Britain's best-selling Internet magazine
Future

Music and the Internet

by Ian Peel

Covering the whole spectrum from rock to jazz, dance to classical and opera to pop. Newsgroups, Web sites, downloadable tracks – your favourite band is on the Net somewhere!

Order code: FLB 0594


.net presents
Sci-Fi and the Internet
Make the Internet work for you
Science fiction meets science fact – how to find your favourite authors, films and TV shows on the Net
From cinema classics to cult TV, you can download episode guides, GIFs, interviews, samples, fan fiction and more!
Clive Parker
From the makers of Britain's best-selling Internet magazine
Future

Sci-Fi and the Internet

by Clive Parker

Science fiction meets science fact – how to find your favourite authors, films and TV shows on the Net. From cinema classics to cult TV, you can download episode guides, GIFs, interviews, fan fiction and more!

Order code: FLB 0543

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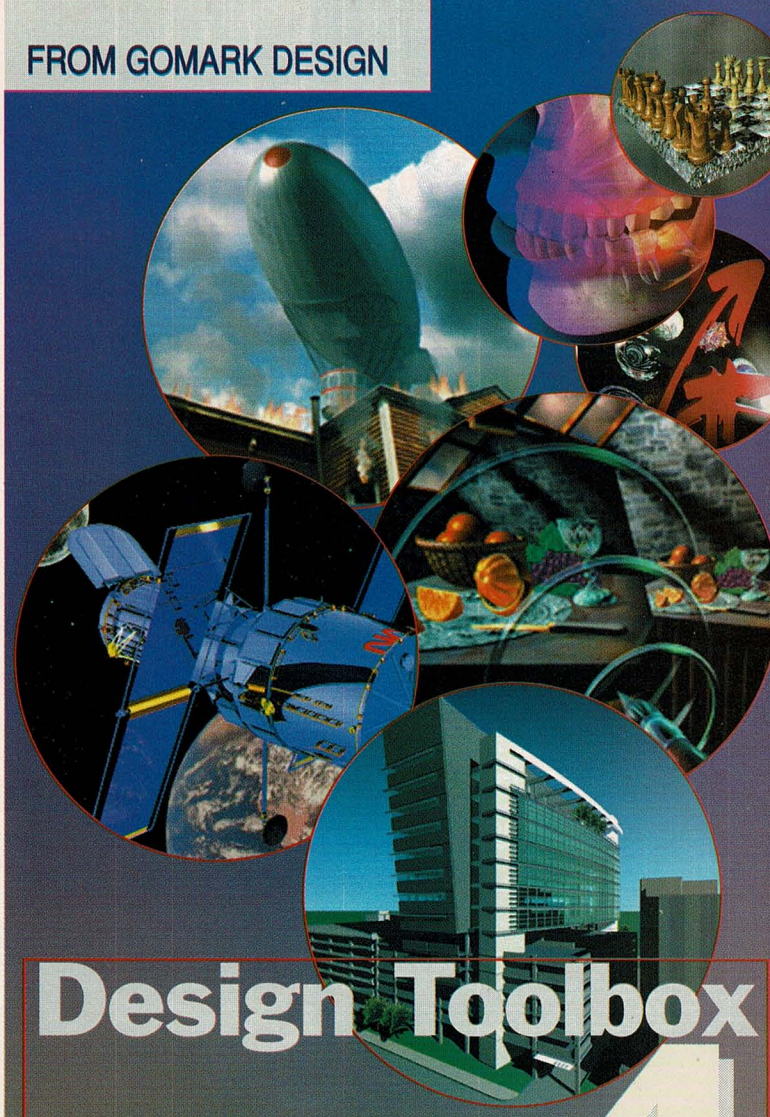

Design Toolbox 4

PRODUCTS FEATURED

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BluePrint
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Color It
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Electric Image
FlexCam Digital
\Studio
Form•Z
Form•Z
\RenderZone
HandWriter
Image Pals
Infini-D
LogoMotion
Marionet
MediaShop
MediaStudio Pro
MiniCad
ModelShop
MPEG Converter
Multimedia
\Utilities
Mutoh Digitizers
PhotoImpact
ProMotion
Replica
Replicas
Sculpt 3D
Sketch
Soft F/X
SuperCard
TextureScape
Touch 3D
Tree Eias
Tree Pro
UpFront
VideoShot
Web Studio
3D World

Gomark's Design Toolbox, a cross platform interactive CD, provides an overview of the entire range of software and hardware peripherals available from Gomark. It contains fully functional demo software, galleries of work and technical specifications presented within a virtual reality environment . The Toolbox enables design professionals to make informed assessments regarding the right tool for their needs before making that all important purchasing decision.

For further information please contact Gomark Design on 0171 731 7930

GOMARK DESIGN

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10 Hurlingham Business Park
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London SW6 3DU
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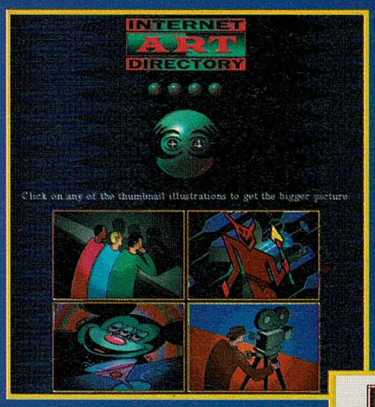
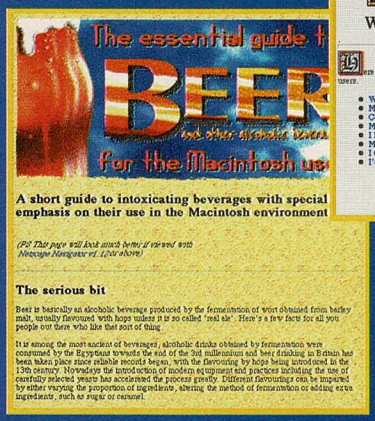
Fax: 0171 610 6257



Chris Paulsen brings you a slick Internet Art Directory full of great images.


The essential guide t
BEER
for the Macintosh us
A short guide to intoxicating beverages with special emphasis on their use in the Macintosh environment
The serious bit

The Essential Guide to Beer comes from Gary Owen – it features all types of alcohol.

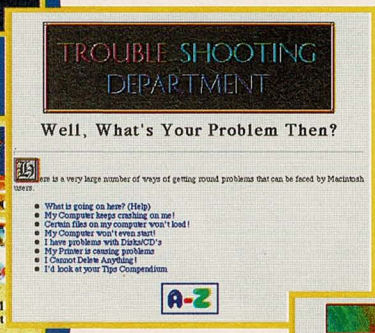
Your Web Pages

MACFORMAT readers show how it's done, with a selection of the Web sites you designed for our competition.

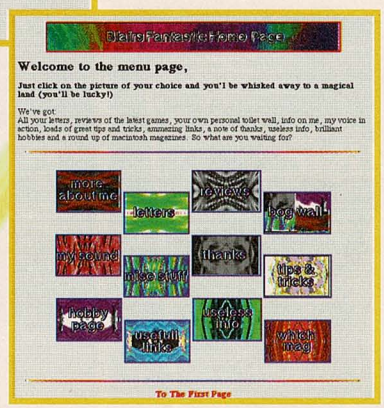
Whew. In MACFORMAT 30, we showed you how to create your own Web pages with HTML editing software. And we also ran a 'DIY Web page' competition in which you could win a gorgeous Macintosh Performa 5300 with modem, TV tuner and dozens of programs, courtesy of Apple Computer. Just as a bit of encouragement, you understand.

As if you needed any. We were stunned by your response, with a wonderful variety of engaging, funny, thought-provoking or just plain odd Web magazines and home pages hitting the MACFORMAT desks. We've put a selection on the CD-ROM this issue (see page 10 for details), and if you're on-line you can see the same pages live on the Web right now: they're on the MACFORMAT area of FutureNet and you can view them for free at **http://www.futurenet.co.uk/computing/macformat**

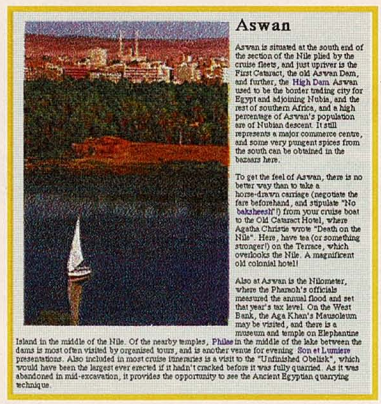
The standard was exceptionally high, with an astonishing level of thought and effort having gone into many of the entries. There are several we could have picked as the winner,


TROUBLE SHOOTING DEPARTMENT
Well, What's Your Problem Then?
What is going on here? (Help)
My Computer keeps crashing on me!
Certain files on my computer won't load!
My Computer won't even start!
I have problems with Disks/CD's
My Printer is causing problems
I Cannot Delete Anything!
I'd look at your Tips Compendium
A-Z

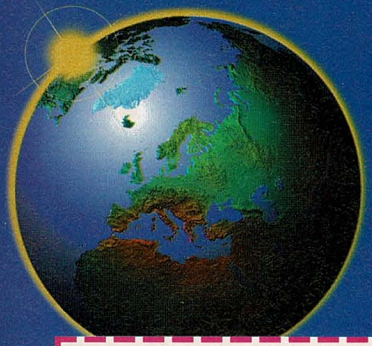
You've never had your Mac problems solved like this: the Trouble Shooting Department from Richard Christie.


Welcome to the menu page,
Just click on the picture of your choice and you'll be whisked away to a magical land (you'll be lucky!)
We've got
All your letters, reviews of the latest games, your own personal toilet wall, info on me, my voice in action, loads of great tips and tricks, annoying links, a now of thanks, useless info, brilliant hobbies and a round up of macintosh magazines So what are you waiting for?
more about me
letters
reviews
bog wall
my sound
thanks
nice stuff
tips & tricks
hobby page
useless info
useless info
which mag
To The First Page

The winner! Blair Robertson brings you a well-structured site that's a lot of fun too.


Aswan
Aswan is situated at the south end of the section of the Nile piled by the cruise liners, and just upriver is the First Cataract, the old Aswan Dam, and further, the High Dam. Aswan used to be the border trading city for Egypt and adjoining Nubia, and the rest of southern Africa, and a high percentage of Aswan's population are of Nubian descent. It still represents a major commerce centre, and some very pungent spices from the south can be obtained in the bazaars here.
To get the feel of Aswan, there is no better way than to take a horse-drawn carriage (negotiate the fare beforehand, and stipulate "No bakhseesh!") from your cruise boat to the Old Cataract Hotel, where Agatha Christie wrote "Death on the Nile". Here, have tea (or something stronger!) on the Terrace, which overlooks the Nile. A magnificent old colonial hotel!
Also at Aswan is the Hikimeter, where the Pharaoh's officials measured the annual flood and set that year's tax level. On the West Bank, the Aga Khan's Mausoleum may be visited, and there is a museum and temple on Elephantine Island in the middle of the Nile. Of the nearby temples, Philae in the middle of the lake between the dams is most often visited by organised tours, and is another venue for evening Son et Lumiere presentations. Also included in most cruise itineraries is a visit to the "Unfinished Obelisk", which would have been the largest ever erected if it hadn't cracked before it was fully quarried. As it was abandoned in mid-excavation, it provides the opportunity to see the Ancient Egyptian quarrying technique.

Graham Raith shows you a side of Egypt you've never seen before in his interactive travelogue.



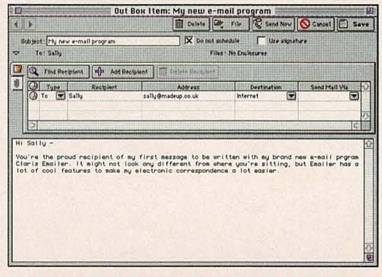
Save £28 when you join the Net with Claris

Get *Claris Emailer* for only £29 when you buy the new *Apple Internet Connection Kit.*

The *Apple Internet Connection Kit* gives you all the software you need to get on-line, including a fully licensed version of *Netscape Navigator 2*, the essential MacTCP and *NewsWatcher.* And its interactive practical guide to help you set everything up is available nowhere else. If you need help to get on-line, this package will show you how it's done.

The *Apple Internet Connection Kit* costs £58.70 (£49.95 plus VAT), but MACFORMAT and Claris have teamed up to offer a special deal, which will increase your enjoyment of the Net even further when you buy the package.

Claris Emailer is designed specially to handle your e-mails. It makes it easy for you to set up your e-mail accounts, even if you have several across different Internet services. It's a simple process to create your messages and store them, ready to send. You can also make *Emailer* check for incoming messages on a regular basis (hourly or twice-daily, for example), and notify



Claris Emailer is a simple yet powerful program to help you make light work of your e-mails.

Yes please! I've bought the *Apple Internet Connection Kit* and I'd like to get *Emailer* (RRP £57) for the exclusive MACFORMAT price of just £29.

I enclose a cheque/postal order for £29.00 made payable to **Claris International, Inc.**

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Address _____

_____

_____

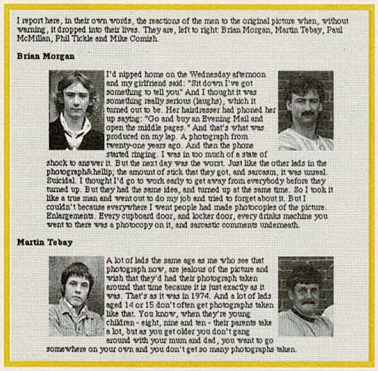
_____Postcode_____

Daytime Telephone no. _____

Serial no. of your copy of *AICK:*_____

Offer closes 31 August 1996

Send this coupon to
***Claris Emailer* offer, MACFORMAT,**
30 Monmouth Street, Bath BA1 2BW


I report here, in their own words, the reactions of the men to the original picture when, without warning, it dropped into their lives. They are, left to right: Brian Morgan, Martin Tebay, Paul McMillan, Phil Tickle and Mike Comish.

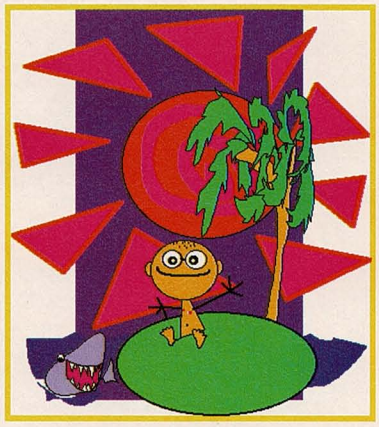
Brian Morgan

I'd nipped home on the Wednesday afternoon and my girlfriend said: "Sit down I've got something to tell you." And I thought it was something really serious (laughs), which it turned out to be. Her hairdresser had phoned her up saying: "Go and buy an Evening Mail and open the middle pages." And that's what was produced on my lap. A photograph from twenty-one years ago. And then the phone started ringing. I was in too much of a state of shock to answer it. But the next day was the worst. Just like the other lads in the photograph,hahilly, the amount of stick that they got, and sarcasm, it was unreal. Suicidal. I thought I'd go to work early to get away from everybody before they turned up. But they had the same idea, and turned up at the same time. So I took it like a true man and went out to do my job and tried to forget about it. But I couldn't because everywhere I went people had made photocopies of the picture. Enlargements. Every cupboard door, and locker door, every drinks machine you went to there was a photocopy on it, and sarcastic comments underneath.

Martin Tebay

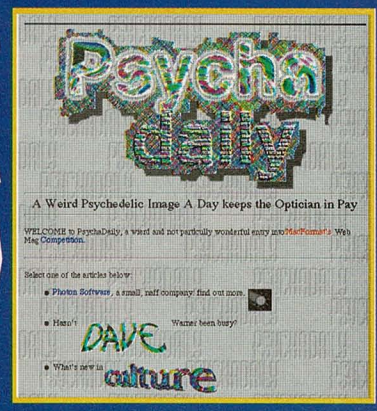
A lot of lads the same age as me who see that photograph now are jealous of the picture and wish that they'd had their photograph taken around that time because it is just exactly as it was. That's as it was in 1974. And a lot of lads aged 14 or 15 don't often get photographs taken like that. You know, when they're young children - eight, nine and ten - their parents take a lot, but as you get older you don't gang around with your mum and dad, you want to go somewhere on your own and you don't get so many photographs taken.

Daniel Meadows shows off a compelling piece of photojournalism on his Boot Boys page.



Janet Jenning's Slippery Fish Page is full of colouful graphics and delightful whimsy.

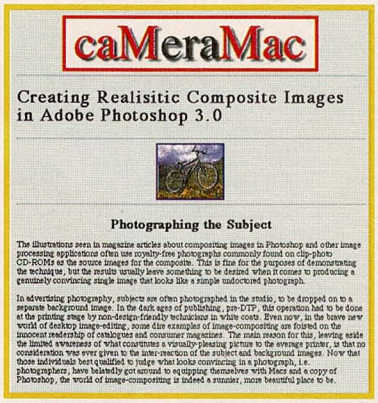
Meet Jennie Barns and see the artwork she's created on her own home page.


Psycha daily
A Weird Psychedelic Image A Day keeps the Optician in Pay
WELCOME to PsychaDaily, a weird and not particularly wonderful entry into MacFormat's Web Mag Competition.
Select one of the articles below:
Photon Software, a small, naff company find out more.
Hasn't Warner been busy?
DAVE
What's new in culture

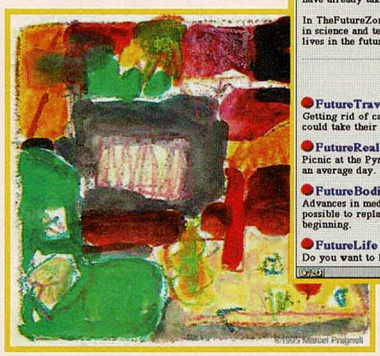
Neil Hobbs' PsychaDaily is an eclectic cultural stew including a tribute to actor David Warner.

but in the end we've selected Blair Robertson of Edinburgh to receive the Performa. His page is an excellent example of good Web design: you always know exactly where you are while wandering the many pages on offer, and it's funny too.

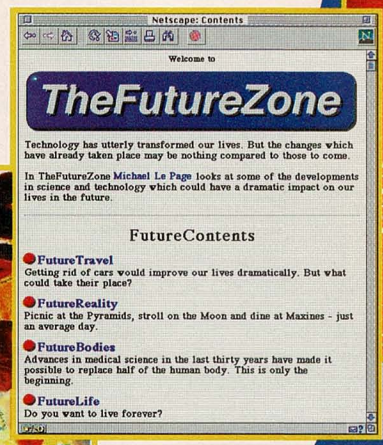
Congratulations to Blair, and well done to everyone else who entered. We're sorry we couldn't include all your entries in the round-up or place them all on FutureNet. But don't stop now that you've taken the first step towards becoming a Web publisher!



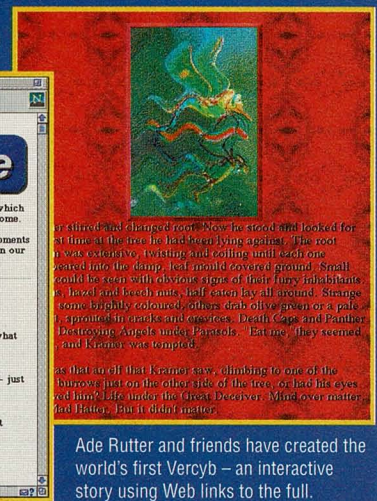
Simon Kirwan is behind caMeraMac, an excellent look at graphics programs and techniques.



Marcel Pragnell displays the best of his 3D graphics and paintings on his Web pages.


Netscape: Contents
Welcome to
TheFutureZone
Technology has utterly transformed our lives. But the changes which have already taken place may be nothing compared to those to come.
In TheFutureZone Michael Le Page looks at some of the developments in science and technology which could have a dramatic impact on our lives in the future.
FutureContents
FutureTravel
Getting rid of cars would improve our lives dramatically. But what could take their place?
FutureReality
Picnic at the Pyramids, stroll on the Moon and dine at Maxines - just an average day.
FutureBodies
Advances in medical science in the last thirty years have made it possible to replace half of the human body. This is only the beginning.
FutureLife
Do you want to live forever?

How will the world of tomorrow take shape? Michael Le Page offers his vision in the Future Zone (no relation).

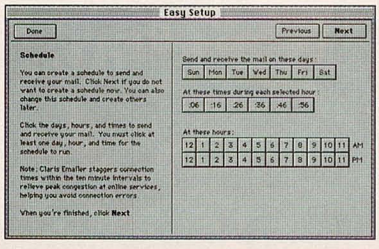


Ade Rutter and friends have created the world's first Vercyb – an interactive story using Web links to the full.

you accordingly. Try out *Claris Emailer* for yourself with the US demo version on this issue's Cover CD.

If you've bought a copy of *Apple Internet Connection Kit* from your local Apple dealer, with this exclusive offer you can get *Emailer* for only £29 inc VAT – a saving of £28.57 on the usual price, or as near as dammit *half price*.

Just fill in the coupon on the left, including your registration number from your shrink-wrapped, boxed version of the *Apple Internet Connection Kit*, and send it to: *Claris Emailer* offer, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. Make sure you include a cheque for £29, made payable to **Claris.** You've got until Saturday 31 August to take advantage of this exclusive MACFORMAT offer!


Easy Setup
Done
Previous
Next
Schedule
You can create a schedule to send and receive your mail. Click Next if you do not want to create a schedule now. You can also change this schedule and create others later.
Click the days, hours, and times to send and receive your mail. You must click at least one day, hour, and time for the schedule to run.
Note: Claris Emailer staggers connection times within the ten minute intervals to relieve peak congestion at online services, helping you avoid connection errors.
When you're finished, click Next
Send and receive the mail on these days:
Sun Mon Tue Wed Thu Fri Sat
At these times during each selected hour:
:06 :16 :26 :36 :46 :56
At these hours:
12 1 2 3 4 5 6 7 8 9 10 11 AM
12 1 2 3 4 5 6 7 8 9 10 11 PM

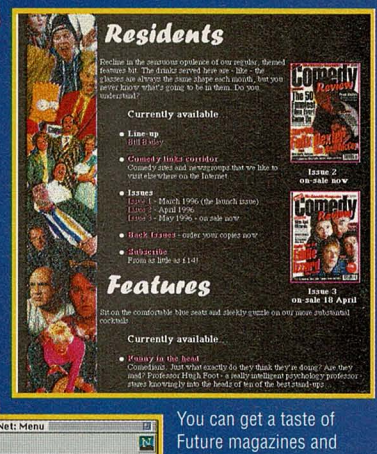
You can create a schedule to decide when you want to be alerted about incoming e-mails.

FutureNet

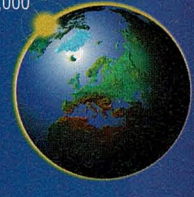
Discover the best the Web has to offer with Future Publishing's own daily magazine.

FutureNet offers you the choice of 40 Future magazines, with something new to read every weekday. Whether you're into music, sport, science fiction, comedy, video games or even the Macintosh, you'll find something ideal for you in the thousands of pages on offer 24 hours a day. Best of all, it's entirely free! To visit FutureNet, point your World Wide Web browser program at **http://www.futurenet.co.uk/**

If it's your first visit, you'll need to fill in a simple registration form to get a user name and personal password – then the whole of FutureNet is yours. As well as all of Future's magazines – including dozens of MACFORMAT pages – you'll also find a daily news service with the latest headlines, an employment section and much more.



You can get a taste of Future magazines and much more 24 hours a day with the ever-growing FutureNet – now with over 300,000 readers.



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2.6GB		P.O.A.	
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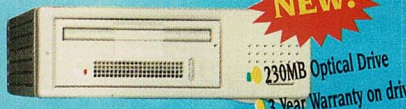

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Getting hooked

You've got a Mac and a modem, but which service provider do you go for? Rod Lawton does his Anne Robinson impression and goes undercover Internet...

You've got a Mac. You've got a modem. And you've got a burning desire to get on-line and sample the fabulous riches the Internet has to offer. But two hurdles still remain – you have to choose an Internet service provider, and you have to install the necessary System files and configure them correctly to use your new Internet account.

If you choose the right service provider in the first place, the second hurdle becomes a lot less daunting because a good service provider will take you through the process step-by-step. But choose the wrong one and getting MacTCP and MacPPP – the keystones of Mac Internet access – to work together could prove to be a most un-Mac-like nightmare.

So, what should you look for when choosing the right service provider for your needs?

With all the Internet servicc providers available today, how do you choose? Let MACFORMAT help!

Cost

Being on-line is expensive. You should be able to find a Service Provider that can offer a local PoP (Point of Presence), so that all your on-line time is charged at local call rates, but it soon mounts up. Five pence for every 75 seconds (normal working hours) doesn't sound much, but you might easily spend an hour a day on-line without really noticing the time going by. Do that every working day, and at the end of the quarter you'll find around £150 added to your phone bill. So keeping your other costs down is bound to be a priority...

Some service providers have a set-up charge. This is notionally to cover the administration costs associated with a new account and the supply of the necessary software and documentation. This charge can be anything from £58.75 (CityScape) to nothing at all. Most companies will provide you with software, such as a Web browser and an e-mail program for example, but you should try to find out whether they're sending shareware or fully-registered versions. If you get a shareware application, you'll only have a trial period (usually 90 days) before you have to pay a registration fee – not usually much, but it adds up.

Almost all service providers levy a monthly charge. Typically this is around £17.70, but some are cheaper – notably Demon Internet, at £11.75 per month. That £5 saving is worth £70.50 over the course of a year.

Some service providers offer Internet access as part of a larger package of commercial on-line services. CompuServe is the best-known example. These services might include news, weather reports, business information, TV listings – it's like a microcosm of the Internet, but generally the information and presentation is of a much higher standard and more quickly accessible. And you pay for it. CompuServe doesn't have a monthly fee as such, but does charge you for all the time you're on-line – 3p per minute, in fact – regardless of whether you're using these special services or simply accessing the Internet. Keep an eye on those charges, because you could be facing a hefty bill.

Speed

Speed is as important as cost. In fact, they're the same thing. You say you don't mind waiting for Web pages to download? You should, because it's not just your time that's being wasted – your phone bill is climbing all the time. You need to check that your intended service provider not only offers a local number for you to call, but that the modems it uses also run at a reasonable speed – 28.8K is the minimum you should accept.

For the same reason, it's worth repeating the single most important piece of advice for any comms user: get the fastest modem you can afford, to minimise your on-line time. Even at local call rates, you could recoup the extra cost in your first phone bill.

You'll also hear the phrase 'modem-to-user ratio' bandied about. It's no use finding the cheapest deal if your service provider only has one modem per hundred subscribers. You don't want to have to wait in a queue simply to get on-line. Most people reckon 15 users per modem is about the maximum for reliable 'on-first-time' connection.

Beginner-friendliness

Despite what people tell you, getting your Mac connected to the Internet isn't what a normal human being would call easy. Don't believe the hype! If you don't know precisely what you're doing, you need a service provider that will listen to your questions and give you intelligible answers.

Other services

Most service providers give you a connection to the Internet, some software to get you started and a technical helpline (usually free of further charges) for when you get stuck. A couple, though, offer their own on-line information services. CompuServe is the prime example, but UK Online is a smaller (but rapidly growing) rival service. And look out soon for AOL (America On-Line) and MSN (Microsoft Network), which are both due to open up their services to Mac owners.

Extra services are fine – if you need them. But do you really need a 24-hour live newsfeed from the world's

TRIAL OFFERS

Some companies let you try out their services before you commit yourself – CompuServe and UK Online, for example. (You can try UK Online via this issue's Cover CD.) And there may also be money-saving offers for new subscribers, so make sure you understand and use them – a free month on-line is worth, typically, £15.

THE BARE ESSENTIALS

We've said it elsewhere, but it bears repeating: to get onto the Internet, you need just five things: your Mac, a modem, a phone line, a service provider and some tiny little Control Panels for your System folder. The first four are relatively easy... The last isn't quite that simple, as some of the margin notes on the next six pages will make clear.

Continued on next page

CityScape: Expensive and not exactly quick to get on-line with.

top press agencies? Or do you prefer to buy a newspaper for 50p? Don't confuse novelty with usefulness. You pay all the time you're accessing these services, so be sure you need them.

Software

What software do you get with your subscription? To connect to the Internet you will need Mac TCP (standard with System 7.5) and MacPPP. You'll also need a World Wide Web browser – *Netscape 2.0* is the best (see our three-way test starting on page 45), but try to find out whether you're getting a shareware version or the fully licensed product. It will cost you $49 (about £32) to register the shareware version and you must do it within 90 days. You may also get an e-mail program (*Eudora* is very good), an FTP application (usually *Fetch* – again, very good) and maybe a newsreader too. *Netscape* handles mail, FTP and news, but dedicated applications can offer more advanced features.

Which Service Provider?

When you take out an Internet subscription, remember that you are buying a complete package, not just a connection. The package should include technical help, good documentation, software and – if you need it – space on the company's Web server (see the margin note at left). So choosing the right service provider is not as simple as picking the lowest price. You're buying a whole package, not just a link into the Internet.

Selecting six leading UK Internet service providers was easy; the hard part was finding which offered the best service and then followed that service through.

If you're a beginner, you want a service that will walk you gently through the whole traumatic procedure, perhaps even if they do charge a few pounds more per month.

If you run your own business, you might want a service provider which offers free Web space, and the opportunity to rent more if and when you want it, as well as help with HTML programming and the mechanics of uploading pages and GIFs.

And if your Internet access is for your student children, you might prefer a service that has tight controls on on-line time and refuses access to dodgy newsgroups.

You should also watch out for warning signs – sales staff who fob you off too glibly, a helpline that's permanently engaged and promotional literature of the standard that more commonly advertises car boot sales. All these are signs that fools will not be suffered gladly.

We posed as raw Internet beginners who wanted to get on-line but didn't know where to start. We assessed six of the service providers who are most aggressively pursuing your business today on the following criteria:

- the response on the first call (to get brochures and other information).
- the quality of the information sent to us (was it Mac-specific, for instance, or just generic and PC-based?)
- the answers provided in a follow-up call where we asked various beginner-type questions (for example, do I need special System Extensions for my Mac, and do you supply them?) prior to starting an account.
- the quality of the subscriber's pack sent out subsequently.

WEB SPACE

If all you want to do is surf the Web, you won't care whether your subscription includes free Web space or not. However, if you fancy creating your own Web page, this is a big bonus. 500K might not sound much, but with careful planning and efficient use of GIFs and JPEGs it's enough for quite a few pages. If you want to use the space for advertising your business, make sure your service provider allows it – some will insist you hire space at their commercial rates.

CompuServe Now
The Home Page of the CompuServe Information Service
Software
The Company
Hot Spots
"Whaddya Say?"
Search
What's New
AUTOTEL
"Never Pay Retail"
Voice E-Mail
for WinCIM
Comedy Central's
Joke of The Day
Instant Web Multimedia
Free Connect Time! • Free Netscape! • And MORE.
Northern Ireland Leaders Debate Online
Join John Hume and David Trimble in a live debate hosted by Guardian LiveWire and the UK Politics Forum
Win Caribbean Trip and Head to the Tropics

CompuServe: this company may be a giant in the US, but over here its slow modems and glib sales patter are a disappointment.

CITYSCAPE

First call

We embarked on a series of questions about whether owning a Mac was a problem and whether we'd get all the software we needed. We were told that all the necessary software would be in the start-up kit, as would answers to all our questions. The £58.75 start-up fee included administration charges and software licences, which lessened the blow. But it was still a blow. In the meantime, CityScape would send us further information about its services.

Subscriber information

This 'further information' consisted of a short and decidedly technical FAQ (Frequently Asked Questions), an order form and a rather poorly produced mono sales flier. If you were shopping around... well, the chances are you'd carry on shopping.

Getting on-line

After being relieved of £76.38 we were told that our account would become 'live' when we received a starter pack, which would be in five days' time (we paid by credit card – you have to wait 10 days if you're paying by cheque). A week later we called to find out what had happened to our documentation, only to find out it would be dispatched 'on Monday' (we called on a Friday). In the meantime, however, we were given our user name and password and were able to get on-line with the help of the technical helpline. We finally received our start-up pack, but it was a Windows version. Ah well, another call to make.

Charges

Start-up fee: £58.75
Monthly: £17.63 (if paid by credit card)
Yearly: £211.50 (equivalent to £17.63 per month)
Local call coverage/modem speed: 100%/28.8K
Free Web space: 1Mb
Others: Discounts on multiple accounts and additional Web space.

Verdict

CityScape only supply fully registered versions of Internet software, but even so, it's hard to see what you're getting for your £58.75 start-up fee. It's also hard to see why it should take so long for your order to be processed, when other service providers seem to manage it pretty well by return. The sales and technical staff were knowledgeable and efficient, but otherwise CityScape looks like an expensive and rather long-drawn-out option.

COMPUSERVE

First call

A brisk and cheerful salesperson fended off all our queries explaining that everything would be in the trial pack they would duly send us. Oh, er... right then.

Subscriber information

By far the most attractive, glossy and professionally-produced offering among those we tested. The CompuServe booklet was upbeat, tempting and surprisingly UK-centric. It even included software so that we could try out CompuServe free for a month before making up our minds. Which, alas, proved a bit difficult because we

CompuServe's Internet access is secondary to its on-line information services. You pay for these, so be sure you need them!

were sent Windows software. Our first contact had been so keen to sell the question-answering ability of the introductory pack that our statement that we owned a Mac went unheeded. After another call, a Mac-based pack was promised.

Getting on-line

Our Mac starter pack didn't arrive. And at the time of going to press, it still hadn't arrived, 14 days after we asked for it. Come on, CompuServe, do you want the business or not? We were on-line with the other five service providers tested and still waiting for the CompuServe pack...

In the event, we were reduced to trying out the service using a PC. We can't tell you how easy it is to connect a Macintosh to CompuServe, but we can tell you what it's like when you get there.

Charges

Start-up charge: none
Monthly: First month (10 hours) free. Subsequent months charged at £6.50 per month for the first 5 hours, then £1.95 per hour (3.25p per minute). Super Value Plan: £17.95 per month for 20 hours, then £1.50 per hour (2.5p per minute). These charges apply for Internet access as well as use of CompuServe's own information services. Some 'premium' services carry a surcharge. Why not just give them all your money and be done with it?
Local call coverage/modem speed: 'most of the UK'/28.8K or less, depending on location.
Technical support: free
Web space: none
Others: Over 3,000 subscriber-only information services. A much higher standard that the average Web page simply because professionals are paid to create them. Don't knock it – CompuServe is BIG.

Verdict

CompuServe does indeed provide an impressive array of polished, professional services, including news, database resources and 'forums' (which are like newsgroups, but without the illiterate sociopaths). Of course, you pay for your on-line time – and look out especially for the 'premium' services, which could end up costing you a fortune.

Indeed, the standard complaint you'll hear about CompuServe is that it's expensive. The thing is, it's not. If you take out a Super Value Plan, you get 20 hours free for a monthly fee similar to those of ordinary Internet service providers. Cost is not the problem (unless of course you frequent the 'premium' services).

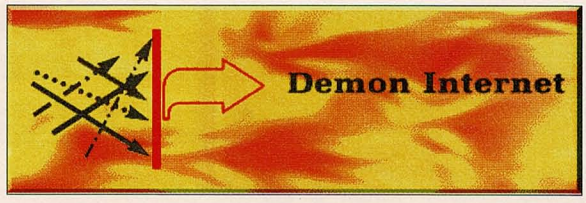
The problem is the whole telecoms infrastructure in the UK. First, CompuServe currently only serves 'most' of the UK. (Okay, so you can call up to check that there is a local number – and if not, choose another service provider.) Second, the modem speeds at the various UK PoPs vary from 28.8K downwards. Very much downwards, in fact. Our best local PoP was in Bristol. There were three to choose from, and only one running at 14.4K – the rest were slower. And Bristol is hardly a provincial town in the middle of nowhere... This was reflected in the on-screen performance. The pages were attractive and well laid-out, but everything took too long to download. Slow, slow, slow.

CompuServe comes with its own 'browser' for touring its information services. If you want to explore the Web, using CompuServe as your Internet service provider, you'll have to find your own Web browser. And put up with PoPs running at half the speed of everyone else's. Not recommended unless you *must* have CompuServe's range of services.

DEMON INTERNET

First call

The person we spoke to was brisk but helpful, and promised to send an information pack. We persisted with our Mac/beginner questions and were told that having a Mac won't be a problem, but that we would have to download Mac software from their server. If we had MacTCP v2.02 or v2.04 or later we would be able to do this. What was promised didn't sound as straightforward as some of the other services we'd looked at, but the confidence (and competence) of the voice on the other end of the line were definitely reassuring.



Demon: concise and businesslike, but not for the beginner. Some neat services for more experienced users, and excellent value.

Subscriber information

We received a large-format booklet giving clear and useful information about the Web and Demon Internet's services. The Mac (and other platforms) are acknowledged, although the PC gets priority. That and the covering letter were nicely produced and businesslike.

WIN a year's free Net access via Demon plus a modem – page 138

Getting on-line

We spoke to someone every bit as knowledgeable as the previous operator. After supplying our credit card details we were told how to make our account active and then given the number for technical support so that we could configure MacPPP. Basically, we could be on-line immediately, although we said we'd probably wait for the starter pack. We did have to choose a 'nodename', though, because of the way Demon runs its service. (If you don't want to get technical, skip this next paragraph.)

Instead of a 'dynamic IP' address (most service providers), Demon provides a 'static IP' address. This means, among other things, that you can have as many e-mail user names as you like for different purposes (business and pleasure, for example).

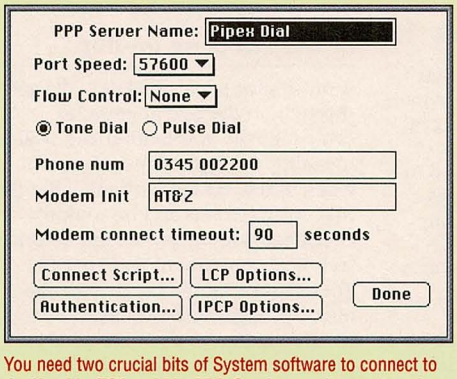
The start-up pack (which arrived just a couple of working days later) explains how to verify your account's IP address and how to log on to Demon's download account to get software. This is a nuisance because it relies on you having comms software (usually provided with your modem, admittedly) and the knowledge of

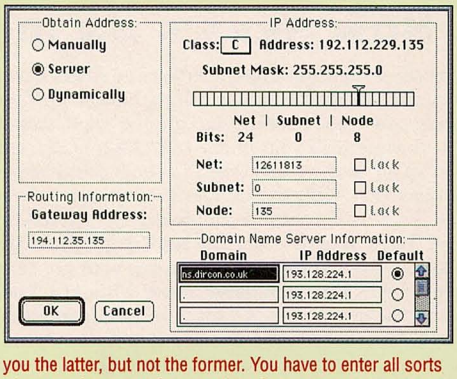
INIT IRRITATING!

It's rare to be able to get your Mac successfully on-line without a call to the technical helpline – no matter how good the instructions. The problem is modem INIT strings (which you set up in the ConfigPPP control panel). It depends on your modem and it depends on the modem at the other end. Sometimes you don't need an INIT string at all, and sometimes you need to type three hundred yards of Egyptian hieroglyphics into the Control Panel. Your service provider can only supply the most common strings, but your modem might want to play hard to get... We can only say again: it's not quite as simple as they say!

Continued on next page

WHAT THEY DON'T TELL YOU!

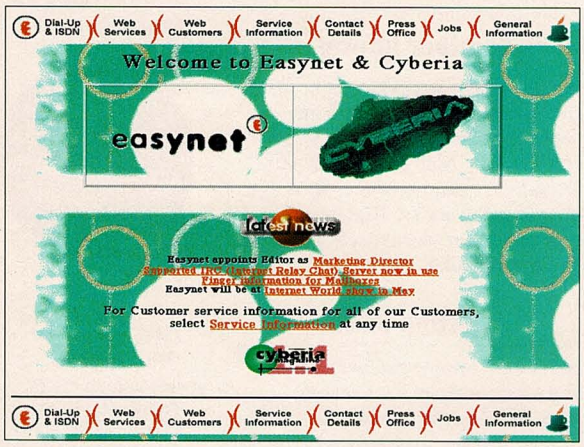




You need two crucial bits of System software to connect to the Net: MacTCP and MacPPP. Service providers often give you the latter, but not the former. You have to enter all sorts of arcane data to get 'em working. Get your provider to help!

WATCH THE MONEY TICK AWAY...

The *Apple Internet Connection Kit* makes getting on the Net as easy as it's likely to get. You even get a handy window in the background that tells you how long you've been on-line.



Easynet: pretty easy, pretty inexpensive, pretty efficient. In in all, a pretty fair choice, though unremarkable.

NICE TO A FAULT?

A number of the service providers with which we set up accounts sent settings files for MacPPP so that you don't have to type them in yourself – very thoughtful. However, be aware that installing a new settings file will overwrite any existing settings. You need written instructions on setting up MacPPP and MacTCP to get round this – you don't want to have to call the technical helpline to do it if, for any reason, you use more than one provider.

how to use it. When you're on the download account, it's easy to spot what you need – the Mac applications and help files are clearly indicated. Annoyingly, though, the help files assume you're installing the MacTCP and MacPPP settings files supplied by Demon, and don't tell you how to modify the ones you already have. It's a real nuisance with MacPPP because if, like us, you have several Internet accounts, MacPPP stores all their PPP settings – install the Demon package and you'll lose the lot. So a call to the (very busy) technical helpline followed. We were told the right settings and they worked first time.

Charges

Start-up fee: £14.69
Monthly: £11.75
Yearly: £141.00 (equivalent to £11.75 per month)
Local call coverage/modem speed: 100%/28.8K
Free Web space: none
Others: free quarterly magazine, plus a range of optional services, including mail forwarding, customised e-mail and company addresses, Web space rental and site-building services.

Verdict

Extremely good value, technically competent staff and lots of useful additional services. Not ideal for the beginner, though. As Europe's largest dial-up Internet provider, claiming to have 70% of the UK market, the whole organisation is brisk and efficient, but it definitely helps to know your way around if it's not to sail completely over your head.

EASYNET

First call

The response to our questions was cheery and helpful. The fact we had a Mac would be no problem because all the necessary software will be included. And if we joined by credit card first thing in the morning, we should be on-line by the end of the afternoon. At any rate, we would be sent some more information about Easynet and its services.

Subscriber information

This information we received consisted of a brief leaflet about Easynet and the Internet, a covering letter, a sales pitch thinly disguised as a short FAQ, some corporate site-building info and a couple of special offers. All the information sheets were black and white photocopies. Will Easynet's Web-building and promotional services really attract big-league companies if their sales literature is as unimpressive as this?

Getting on-line

It must have been a bad day. We got through on the first attempt, to someone who was helpful and well-meaning, but laid-back to the point of being dazed. He couldn't say what the Mac software was and he couldn't check because the phone line to the technical department was engaged. The account should be 'live' in about one working day, but it might be worth waiting for the start-up kit to get proper instructions. Indeed.

Our follow-up call ten days later (we'd received nothing in the interim) revealed that we should have been asked to nominate a user name and password, and we didn't appear to have been added to the system. We went through the whole credit card rigmarole again, and later that same day got on-line by checking MacTCP and MacPPP settings with the technical helpline.

The following Monday (we'd called on a Friday), the subscriber pack duly arrived. It consisted of a covering letter, clearly laid out instructions on connecting and two disks of software. The software included MacPPP (not MacTCP, though), *Netscape 1.1*, *Eudora Light*, *Fetch*, telnet and usenet programs, among others. You seem to get a lot for your money, but since most people would find it easier to use *Netscape 2.0* for everything these days, is there much point to it all?

Charges:

Start-up fee: £57.34 (includes first two months)
Monthly: £13.98
Yearly (not including set-up): £139.59 (equivalent to £11.63 per month)
Local call coverage/modem speed: 94%/28.8K
Free Web space: none
Others: Web space rental, virtual servers, consultancy, programming and other site-building services.

Verdict

We must have called on a bad day the first time we tried to start an Internet account. Otherwise, Easynet was prompt and efficient. The software supplied with the subscription is rather dated, but that's easily remedied by downloading a copy of *Netscape 2.0* from Netscape's support site. Otherwise, Easynet's service is solid and unremarkable. Some free Web space would have been nice, though.

PIPEX

First call

The sales staff were keen to help, but admitted that owning a Mac was a bit of a problem because they don't supply Mac software. All that is set to change when they take delivery of the *Apple Internet Connection Kit* and offer it as part of the subscription package. (This should have happened by the time you read this.)

Subscriber information

Poor. We received two leaflets: (i) an application form, (ii) a brief guide to PIPEX services (including an excellent, but PC-only, interface – grrr!). A covering letter briefly described the services and software supplied – again, PC-specific. Then it got confusing. The

NOW HERE'S AN IDEA

One advantage that CompuServe subscribers have is that they can readily check their billing information. Now why doesn't someone invent a background application that can do the same with your phone bill? All it needs to do is add up all your on-line time (maybe it could be patched in to MacPPP?). Different charges (for example at evenings and weekends) could be automatically 'factored in' using your Mac's System clock. The application could also display alerts if you look like exceeding your pre-set telecoms budget, and even shut down access without a 'further authorisation' password. You could add 'performance graphs' for chosen sites/times so that you can pick the best times to access those sites. The possibilities are endless. (Developers: we'll license this idea for a very modest fee.)

INTERNET SERVICE PROVIDERS

These service providers offer what's called a dial-up service for the Internet – you get onto the Net through your modem by dialling their servers. All the firms listed here can provide Mac software to get you set up, although you should check if that includes MacTCP. (It usually doesn't, because they have to go through the hassle of getting a licence from Apple to do so.) Most providers charge an initial one-off set-up fee to open the account, followed by a regular monthly charge. Some offer a discount if you pay for a year's service up-front.

We've covered the accounts for individual home users here, but all the firms offer extra packages, including faster connections for businesses. We've also listed how much of the UK each provider covers with a local call rate to keep your phone bill down, and what speed of modem (in kilobits per second) their servers can handle. All prices include VAT.

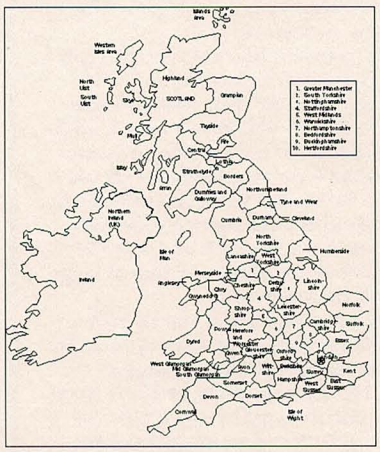
Service provider	Set-up	Monthly fee	Coverage	Speed	Telephone	Web address
Almac	£29.38	£15.98	100%	28.8	01324 666336	http://www.almac.co.uk/
BOGOMIP	£29.38	£14.10	London	28.8	0800 137536	http://www.bogo.co.uk/
CityScape	£50.75	£17.63	100%	28.8	01223 566950	http://www.cityscape.co.uk/
CompuServe	Free	From £6.50 (1)	100%	varies (2)	0800 000200	http://www.compuserve.co.uk/
Demon Internet	£14.69	£11.75	100%	28.8	0181 371 1234	http://www.demon.net/
Direct Connection	£8.81	£17.63	100%	28.8	0181 297 2200	http://www.dircon.co.uk/
Easynet	£29.38	£13.98	94%	28.8	0171 209 0990	http://www.easynet.co.uk/
Enterprise plc	£23.50	£9.40	100%	28.8	01624 677666	http://www.enterprise.net/
PIPEX Dial	£27.01 (3)	£17.63 (3)	100%	33.6	0500 474739	http://www.uunet.pipex.com/
RedNet	£29.38	£17.63	100%	33.6	01494 513333	http://www.rednet.co.uk/
U-NET Limited	£14.10	£14.10	80% (4)	28.8	01925 633144	http://www.u-net.com/
UK Online	Free	£9.99	89% (5)	28.8	01749 333300	http://www.ukonline.co.uk/

(1) Extra fees charged for time spent on-line and some exclusive ('premium') services
(2) Up to 28.8, depending on region
(3) Estimated prices: Mac service expected to start this month
(4) Expected to reach 100% this month
(5) Expected to reach 100% in July

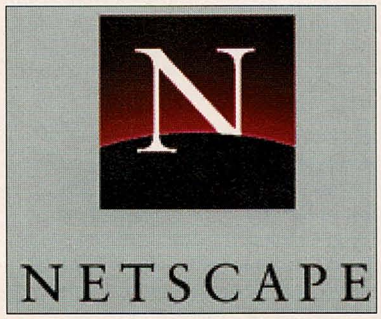
application form quoted a start-up fee of £58.75, while the covering letter said it was £27.01. There were other discrepancies too, so we checked: the covering letter is rather more up-to-date than the other documentation, and PIPEX now offers 1Mb of Web space for every account and 100% UK local call coverage with 33.6K modems

Getting on-line

Since PIPEX couldn't yet offer a software suite for Mac users, we went for the cheapest option, 'account only' (£13.50), which apparently enables Internet e-mail. We would be sent *Netscape 2.0* and e-mail software. Hmm... if they sent us *Netscape 2.0*, presumably that meant we had full Net access, not just e-mail? We asked if we would get full Internet access. The sales lady explained again that we would get *Netscape 2.0* and e-mail software... We ended up none too clear on what you missed out on if you just got a plain account, and thought that any enquiries about



Your biggest cost is likely to be the phone bill, so check that you can get access at local call rates.



Most service providers will supply you with a Web browser, but you may have to pay the licence fee.

MacTCP and MacPPP might be a little too ambitious. Anyway. Our account would be up and running when we received the joining package.

This arrived five days later. But where was the software? A call to the sales department established that, in fact, Mac owners wouldn't get software with their subscriptions until the *Apple Internet Connection Kit* became available. So much for our earlier advice! Currently, you'll have to find your own browser and your own copies of MacTCP and MacPPP. Many Service Providers supply Mac software via special download accounts, but there was no mention of anything like this here. Just as well we had the software already, then!

The start-up documentation provided information on configuring MacTCP and MacPPP, but we still needed to call the technical helpline to find a modem initialisation string that would work. (The one suggested in the documentation works with most models, but we obviously had a tricky one.)

Charges:

Start-up fee: PIPEX hopes the existing start-up fee of £27.01 will remain unchanged with the introduction of the *Apple Internet Connection Kit* (but you'd better check with PIPEX, just in case). Or, if you just want to get on-line with the bare minimum, you can set up an 'account only' for £13.50.
Monthly: £17.63 (unlimited use).
Yearly: £193.88 (unlimited use, equivalent to £16.16 per month)
Software: to be announced, but probably the *Apple Internet Connection Kit* (see our roundup of starter kits on page 41).
Local call coverage/modem speed: 100%/33.6K
Free Web space: 1Mb
Others: up to five separate mailboxes

Verdict

PIPEX must be the UK's second most popular service provider for a reason, but we doubt many of its subscribers are Mac users. The sales staff were extremely vague and often mutually-contradictory when pressed on Mac-related information, and a beginner would have been completely lost on receiving the subscriber's pack. The arrival of the *Apple Internet Connection Kit* should change all that, though, and at the moment PIPEX seems to be the only UK service provider set to send it to subscribers (PIPEX's details are the default settings in *AICK*, though you can alter them). When it does, PIPEX will take a huge leap up the ratings, but we'll reserve judgement on the company's general Mac know-how.

GRAB THAT INFO!

ConfigPPP is an exceptionally intelligent Control Panel that enables you to store any number of service provider configuration files and select them from a drop-down menu. MacTCP is an exceptionally stupid Control Panel that only offers one configuration, loses all current settings when you install new ones, and demands a restart before changes become effective. If you use more than one service provider, you'll need to record specific MacTCP settings for each. You could write them down on the back of an envelope, or you could open the MacTCP settings window, grab the screen (by hitting **[command] [shift] 3**), open the screen with *SimpleText* and print it out...

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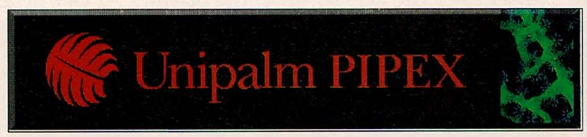


PIPEX: don't call the sales staff for Mac advice! However, technical back-up is good, and the *Apple Internet Connection Kit* (imminent, with PIPEX details ready-entered for you) should transform the Mac bundle completely.

UK ONLINE

UK Online: a real bargain right now – how can UK Online offer Internet connection and information services for less than most plain Internet access-only accounts?

UK ONLINE

First call

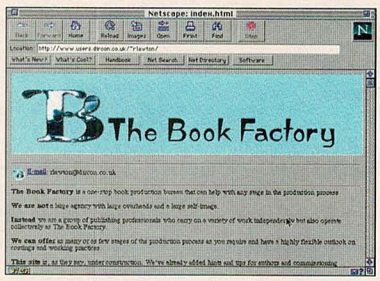
Bad start. An automated answering system asked us to wait in a queue until an operator was available. We sat in the queue for three minutes and then gave up. We tried again the next day. Again we sat in a queue, but this time we persisted and after another three minute wait we spoke to the sales department. It turned out to have been worth the wait. We spoke to someone knowledgeable and friendly who, unlike many of the others we spoke to, didn't appear to have picked up the phone while rushing out of the office to catch a bus. We were told we'd be sent a demo disk that would contain the necessary information and software for a free trial so that we could make up our own minds before subscribing. What about MacTCP and MacPPP? Taken care of in the introductory pack. What machine did we have? PowerMac. Fine – the pack is on its way...

Subscriber information

Very good. It consisted of a bright, colourful and friendly leaflet about UK Online, and a thorough, detailed, multi-page set of instructions on how to set up your Mac and how to log on to UK Online. The pack even came with the right software (PowerMac), plus all the necessary software (MacPPP, *Internet Explorer* and a newsreader – *not* MacTCP, though). The extent of the trial period wasn't too clear, but the rest of the information and beginners help was first class. (The UK Online trial bundle is also on our Cover CD so you can give it a whirl yourself.)

Getting on-line

We decided to take a look at the trial service, which didn't involve parting with any cash and promised a taste of the full service (although it had to be accessed via a London PoP, so you'll soon want to subscribe anyway!). But first, we had to get connected. The disk in the trial pack contained everything we needed. Alas, so did our Mac. There was an easy-to-follow Read Me but no printed instructions on setting up MacTCP and MacPPP, just preconfigured settings files. So, to avoid destroying our existing settings (MacPPP can store settings for many different services) we had to phone the technical helpline and do it the hard way. Registering for the free trial was a little fiddly, but once that was done, the UK-centredness of the services was refreshing, and they looked very useful too. Definitely one to consider – especially at these prices.



Many service providers give subscribers free Web space, and if you choose the right company (in this case The Direct Connection), it'll let you use it for advertising your business.

Charges

Start-up fee: none
Monthly: Individual subscription £9.99 – 10 hours per month, one e-mail address and unlimited personal (not commercial!) Web space. Family subscription (£14.99) – unlimited time, four e-mail addresses and unlimited personal Web space. Internet subscription £14.99 per quarter (equivalent to £5.00 per month) – unlimited time, one e-mail address and forwarding facility.
Software: *Internet Explorer*, MacPPP, *NewsHopper* (newsreader)
Local call coverage/modem speed: 85% (100% by July)/28.8K
Free Web space: unlimited (personal use only)
Others: Steadily expanding range of subscriber-only on-line information services. A sort of junior CompuServe but without the cost.

Verdict

This service seems to be going places. If UK Online can continue to build up its quality UK-based information services and yet maintain its low prices, it will rival Demon for sheer cost-effectiveness. It's also geared much more towards family use.

FETCH, BOY

Netscape Navigator 2.0 does everything you'll probably ever want to do on the Internet. You don't really need any other application... except *Fetch*. *Netscape* can handle FTP (File Transfer Protocol) seamlessly, but only to download. *Fetch* is an FTP application that also enables you to upload pages to a Web site. A copy of *Fetch* is yours on our Cover CD this issue.

THE VERDICT: THE GOOD, THE BAD AND THE UNGAINLY

We were looking for – and expected to find – service providers who were Mac-literate, efficient, affordable and accessible for beginners. In practice, we found support to be vague, patchy and often next to useless. Last month in MACFORMAT we reported a survey which noted that 40% of all people who browse the Web do so using Macs, but most of the service providers we sampled were hugely PC-biased and even where they had heard of the Macintosh kept forgetting it was a different animal.

Of the four connection-only (no additional information services) companies we set up accounts with, Demon was the most efficient and best value. However, to get the necessary Net connection software, you have to use a comms package to connect to Demon's software site. An irritating chore for experienced comms users, but a terrifying (and unacceptable) hurdle for raw beginners.

PIPEX sales staff are no help to Mac beginners, and while the arrival of the easy-to-install *Apple Internet Connection Kit* as part of the Mac subscription bundle is imminent, a little more specialist knowledge – and the time to listen – would still be appreciated.

Easynet proved efficient enough to deal with, if unremarkable, but the £58.75 start-up fee for CityScape's Internet account yielded no clear benefits. And although our pack arrived with a whole slew of software, it was all for Windows, not Mac. Don't people listen when you place your order?

CompuServe and UK Online, the two service providers which also ran subscriber-only information services, couldn't have contrasted more starkly. Within three days of our initial enquiry, UK Online had sent a starter kit which let us explore the company's services and the Internet for a month, free of charge. CompuServe also offers a free trial period. However, 20 days after our first enquiry, and despite subsequent follow-up calls, CompuServe still hadn't managed to send us a Mac-based trial pack. Combine that with slow modems and incomplete UK local call coverage, and you have a service that looks a lot less attractive than its glossy promotional fliers.

Our advice? Demon offers good value and sound technical back-up if you're a more experienced user. UK Online offers astonishing value and services well tailored to the home/hobbyist market. The rest, frankly, could do with a good shake-up. They'll all get you on-line soon enough, but you might get a bumpy ride.

Golden rules? If you are a beginner, and you're approaching the Net with trepidation, here's the MACFORMAT list of the four things you really need to know.

- **You'll need MacTCP. It comes with System 7.5 and possibly 7.1.2, but not earlier versions. Your service provider is unlikely to be able to supply you with a copy of this, but it is available from Apple. If you can't get it from your local dealer, call Apple free on 0800 127753.**

You need to configure MacTCP to suit your chosen service provider.

- **You need MacPPP. This doesn't come with your Mac so you have to get it separately, either from your service provider or elsewhere – we've included it on the Cover CD this issue. You need to configure it to suit your chosen service provider.**
- **Once you have MacTCP and MacPPP, call the service provider's technical helpline to get them set up.**
- **Service providers often supply half a dozen different Internet applications. Do you go for the one with the biggest bundle? No. All you really need is a good browser, like *Netscape Navigator 2.0*. For everything. Other specialised software *may* come in useful later, but not now. MF**

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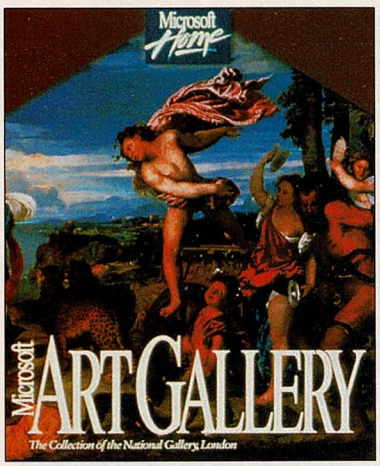

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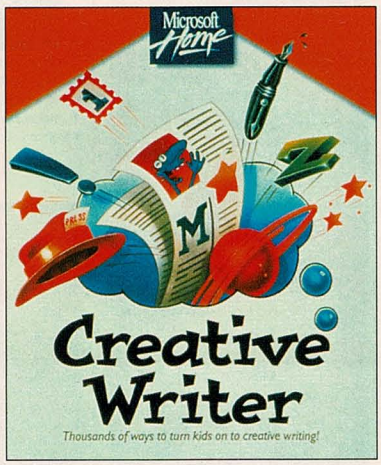

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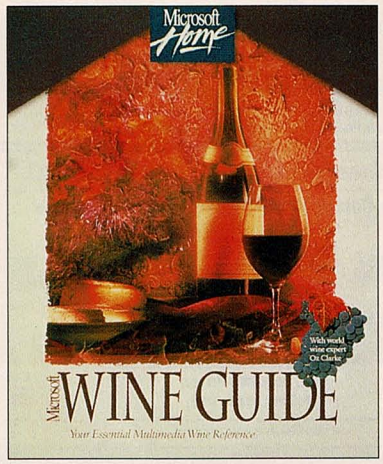

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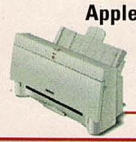

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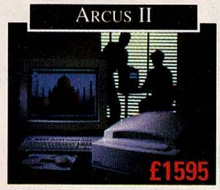

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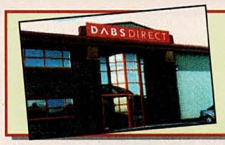

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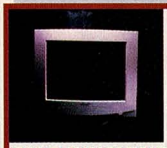

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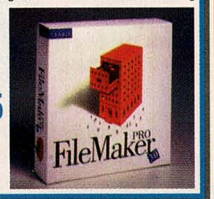

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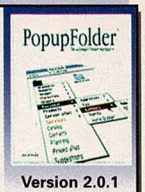

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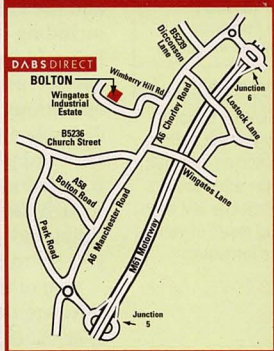

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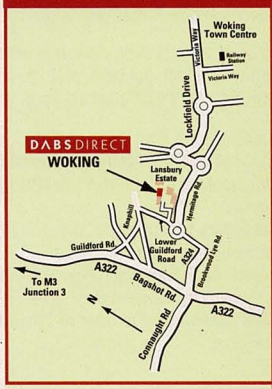

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Spherical animations

You can create some amazing effects using the latest version of *Kai's Power Tools*. Frank Bartucca shows you how to unleash the power of *Spheroid Designer*.

Try the *KPT3* demo and *Spheroid Designer* movie on the Cover CD

Kai's Power Tools have become an invaluable plug-in to the design world because of the extraordinary results that can be achieved by exerting so little effort. Even if you don't have a natural talent for art, you can produce stunning visuals to use in all kinds of applications. If you're already acquainted with *KPT 3*, you'll need no further reiteration of the immense power that these tools really hold. If, however, you're new to the world of *KPT 3*, here's a brief rundown.

Reviewed in MACFORMAT 33, *KPT 3* was praised for its interface redesign and the extra tools it incorporated, including *Planar Tiling, Interform* and *Spheroid Designer.* All of these have easy-to-use interfaces and their operations take up surprisingly little disk space – unlike some of *Photoshop's* standard procedures, where your Mac is forced to tell you that 'The primary scratch disk is full' or that you've simply not got enough RAM when you try to use them.

One of the best examples of the software that formed part of *KPT 3* is *Spheroid Designer,* which enables you to create 3D spheres with mapped, textured surfaces. Your finished work can be used to produce textures, as well as in illustration and for inclusion in presentations and multimedia work that uses animation. The software includes many preset textures, with endless variants, and it also provides you with the facility to create your own. You can also choose effective lighting and colours.

But the fun doesn't end there. It really begins when you take the sphere you've designed into the Genesis Editor, an interface that lies within *Spheroid Designer.* This enables you to 'grow' organic-looking spheroid formations and from there, create your own QuickTime animations.

Once you've taken your sphere into the Genesis Editor, you can apply even more effects. The walkthrough opposite makes use of as many of these attributes as possible, while keeping the whole thing simple and maintaining the loop. See the result with the QuickTime movie on the CD. **MF**

From lunar landscapes to golf balls, *KPT 3's Spheroid Designer* is an easy way to play. Here the Dune Ridge texture map has been selected, with red, green and blue lighting effects. The 'memory dots' enable you to save attributes with a single click, so you can change your mind as often as you like without losing anything.

The Genesis Editor is found near the bottom of the screen, but look at all the other presets too. Each one will alter the end result of your sphere formation.

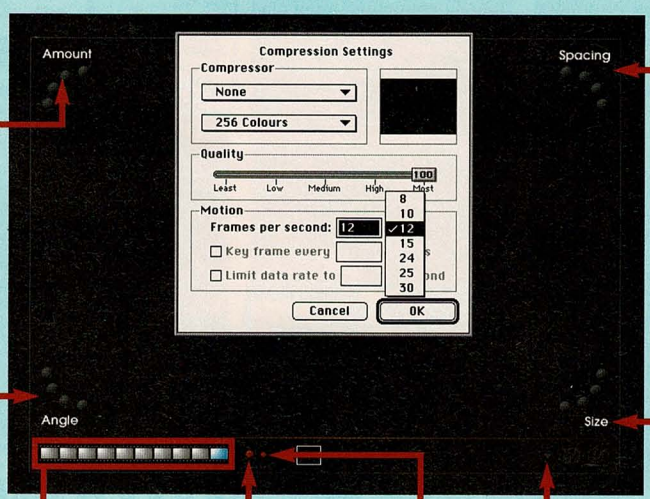
UNDERSTANDING THE GENESIS EDITOR'S ATTRIBUTES

To begin with, click on the words in each corner to reveal four balls, each of which controls a different attribute.

Amount (from top):
Initial branching: controls the number of extensions that develop from the first branch.
Secondary branching: as above, but for following branches.
Branch deviation: you can move each branch in any direction from here.
Total spheres: The number of spheres you have!

Angle (from top):
Rotate: turns the whole thing round from the centre.
Branch twist: this twists your branches in 3D.
Branch spread: determines how thick the foliage will be.
Branch angle: rotates the branches by a pivot

The ten key frames: if you want to change any of them, just hold down the **[option]** key and click on the frame to delete it.



Large grey button: clicking on this will turn it red and bring up the Save window up, then the compression window, shown above in the centre of the screen. There are several ways of compressing your animation – it might be a good idea to try a few and see the difference.

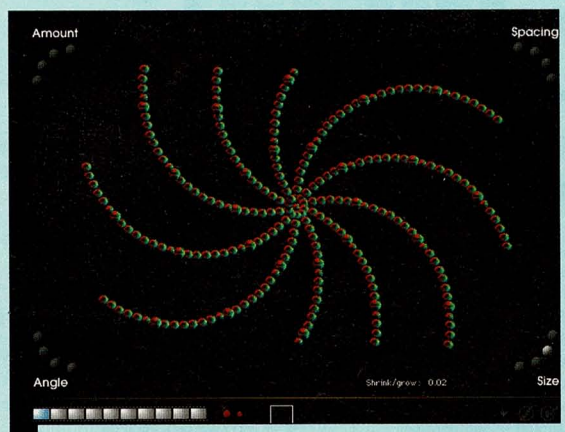
Spacing (from top):
Branch length: determines the length of each branch.
Branching deviation: the course of each branch can be altered quite dramatically.
Spheres per branch: if you choose too many, the branches become cluttered.
Kinkiness: another way of distorting your formation (honest!).

Size (from top):
Zoom: like a camera lens, only with balls!
Shrink/grow: this actually makes individual spheres shrink or grow, which is a handy tool.
3D Offset Horizontal: spins the entire formation around on the X axis.
3D Offset Vertical: spins your formation around the Y axis

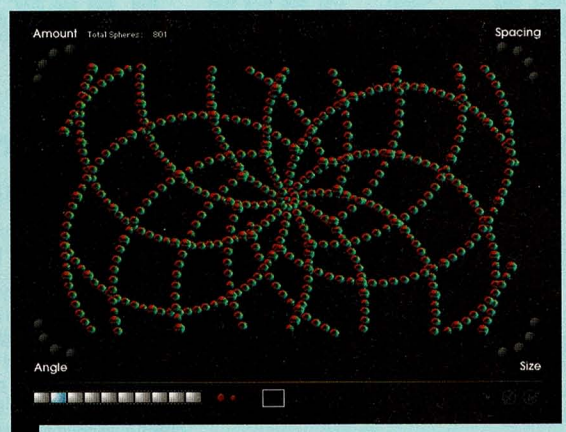
Arrow head: the list of preset formations, including **Alien Starfish, Sphere Tree** and **Spiral Rings.**

Small grey button: this is a lovely little button – it enables you to view a wireframe looped version of the key frames saved to that point.
White framed square: change the background colour here.

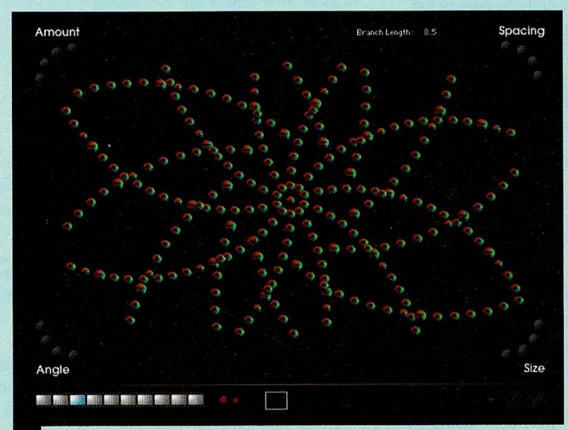
UNLEASHING THE POWER



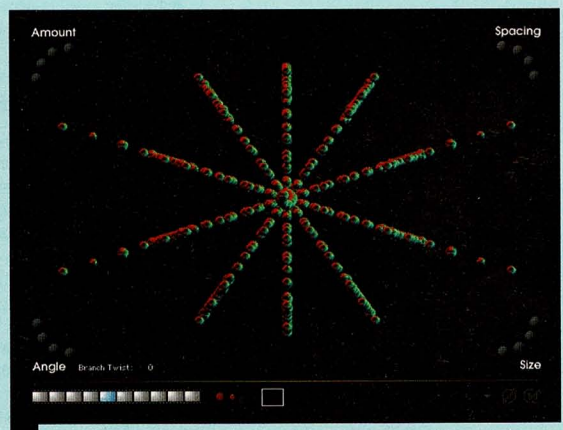
1 After deciding on your sphere's surface texture and lighting, open up the Genesis Editor by selecting it from the **Options** menu found at the bottom of the main window. Then click at each corner to get the attribute controls in place. Select Spiral Rings from the preset formations which appear under the arrow head at the bottom right hand corner of your screen. Set the spheres at 301 in the **Amount** corner and zoom in by 0.095 from the **Size** corner. You can make all these adjustments by clicking the mouse and holding it down, then dragging either left or right.



2 By planning a sequence in advance, you can achieve the best results. So, after clicking on the first key frame to save your most recent bit of information, you may want to play around with a few scenarios before settling on a simple progression like, for instance, upping the number of spheres you are using to 801. Once you've done this, click on the second key frame to save your information.

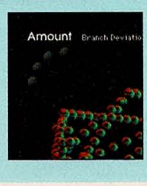


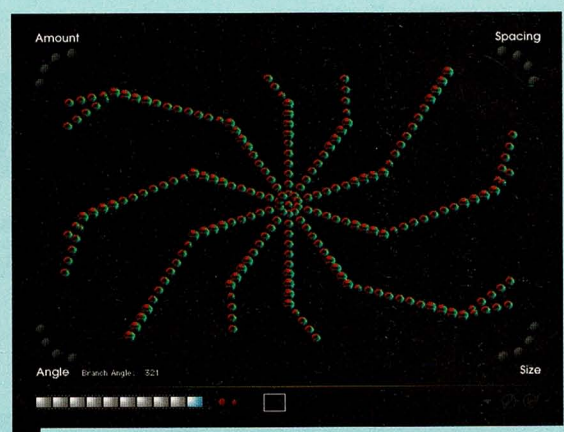
3 If you decide you want to change any of the key frames, just hold down the **[option]** key and click on the frame to delete it. In the above frame, the only change is to extend the Branch Length to 8.5 in the **Spacing** corner. Now click on the third key frame. From the **Spacing** corner again (right), change the Branching Deviation to -7.75. Click on the fourth key frame to save the information.



4 In the **Angle** corner, change the Branch Twist to 0 and click on the fifth key frame to save. Again in the **Angle** corner (right), set the Branch Angle to 50 and then from the **Spacing** corner, set the spheres per branch to ten. And click on the sixth key frame to save your information.

5 In the **Size** corner, set the 3D Horizontal Offset to 0.619. Click on the seventh key frame. Rotate the Branch Angle all the way to 360 degrees. From the **Amount** corner (right), adjust the Branch Deviation to one. Now click on the eighth key frame.





6 In the **Spacing** corner, set Branching Deviation to 0.75 and click on the ninth key frame. Then from the **Size** corner, set the 3D Horizontal Offset to zero, and Branch Angle to 321. Click on the last key frame. Then click on the larger of the two red buttons to save all the frames. Next the compression options appear. How you compress your work depends on both the amount of storage space you have available and what use you intend for your finished movie.

IN THE BEGINNING...

To create a sphere, make sure the *KPT 3* filters are installed in your graphics program's Plug-ins folder. Select *Spheroid Designer* from the **Filter** menu. Select a surface texture, either from the **Preset** menu or **Bump Map** menu, giving you the option of importing your own bump maps. Then it's a question of messing about with all the controls until you're happy. Saving, using the memory dots as you go along, will ensure that you always have earlier versions available. There are also four lights around the main sphere that you can adjust according to Hue, Highlight Intensity, Light Intensity and Light Polarity. You can also mutate one or all of the attributes, to give you some pretty freaky results.

IT'S SHOWTIME!

To view your finished animation, you'll need a QuickTime movie player, something like *Peter's Player,* which is... yep, you've guessed it, on this issue's Cover CD. To view our demo movie (which is in its own folder in the **Extras** folder on the CD), open the *Pete's Player* folder, then drag the movie icon onto the *Peter's Player* icon.

DON'T STOP THERE

Check out the *KPT Interform* plug-in that enables you to create textured animations. Also, if you've got a program like *DIrector* or *Apple Media Tool* – given away on the Cover CD of MACFORMAT 36 – you could splice together two animations, taken from both plug-ins. If you missed MACFORMAT 36, turn to page 119 for details of how to get a copy.

What's on the Menu?

***Apple Media Tool* enables you to create your own multimedia extravaganzas. Colin Dalziel takes you through some of the options you've got to play with...**

RUN THAT ONE BY ME AGAIN...

Apple Media Tool was yours free on the MACFORMAT 36 CD, and we've been featuring guides since then. It's the full version of the program except that you can't create stand-alone packages with it. The complete version, which adds this feature, is £428. For more details contact Claris on 0181 756 0101.

Events menu The *Apple Media Tool* Events menu offers a number of commands for you to try.

Multimedia authoring programs enable you to create your own interactive productions. The top authoring program *Apple Media Tool* was yours free with the CD-ROM on MACFORMAT 36. If you have followed the tutorials in the last three issues of MACFORMAT you should now understand how to put together a project with *AMT*.

Here's a guide to the menus and less obvious options of *Apple Media Tool*.

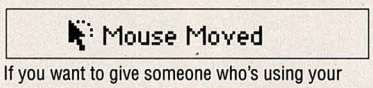
Events Menu

Events are used to trigger commands, effects and links in a project. There are 13 different **Events** options for you to choose from. You can use each of the events in a number of ways.

Each object on the screen receives this command before it is displayed. By using the **Before Display** event you can attach other actions and cause them to occur before the object is shown, for example playing a sound.

This command to triggers an event immediately *after* an object is shown. With the **Timer** option you can start a movie playing after a delay.

This makes an object sensitive to mouse clicks and therefore interactive – for example, clicking on a button to reveal an image. You might prefer the **Mouse Up** command, since users generally expect the *release* of the mouse button to trigger an action. You can still use **Mouse Down** to trigger click sounds or highlight effects.

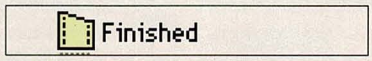


If you want to give someone who's using your production the option to move objects around the screen themselves you can do so with the **Mouse Moved** event. Any object with a **Mouse Moved** event and a **Drag** action can be dragged around the screen. It's handy to move things around during a showing but you should remember that the final position of the dragged item will not be stored when you decide to exit the project.

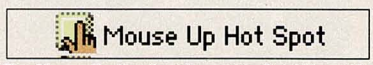
Similar to **Mouse Down,** this command is used to make an object sensitive to mouse clicks, enabling you click on a button to reveal an image. But for the event to occur when you release the button, the cursor must be over the area that the option applies to.

A useful event for keeping the user informed of when your cursor is over a hot spot or button. By applying the **Mouse Enter** event to an object you can cause actions to take place immediately such as highlighting an area or playing a sound.

The **Mouse Leave** event is normally used in conjunction with the **Mouse Enter** event to remove a highlighted area. Use the **Hide** action to implement this.

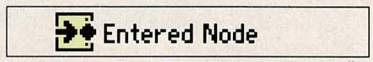


The **Finished** event is a handy little command which is applied when a sound or movie finishes or the display time of an image runs out. Its benefit is that once your clip has run you don't have to think too hard about what to do next. By attaching commands to the **Finished** event you can return to the main menu or, if you prefer, you could use it to show another image in a slide show project.



The **Mouse Up Hot Spot** is used in QuickTime VR movies when the user clicks on a pre-defined hot spot. As QTVR movies are self-contained units, you can't add your own hot spots. You can use the **Mouse Up Hot Spot** to change items outside the VR movie such as music or backgrounds.

This enables you to display additional information in QTVR movies, like where the link will take you.

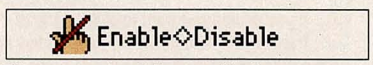


Similar to the **Mouse Entered Hot Spot. Entered Node** enables you to display details of a link *after* you've moved to it in a QuickTime VR movie.

The **Key Down** event enables you to set up actions to occur whenever a pre-defined keyboard option is selected. You can use letters, numbers or special keys such as the **Help** key. You can't, however, use the **[command], [shift], [control], [option], [caps lock], [delete], [clear], [tab], [enter], [return], [escape]** or **arrow** keys.

Commands Menu

Use the **Enable** command to switch on objects so that they are able to respond to actions. You may want to have an object on the screen which lies dormant until a certain set of actions are performed. For example, if you were designing a puzzle, the user might have to find a key and put it in the lock before the door is active and can be opened.

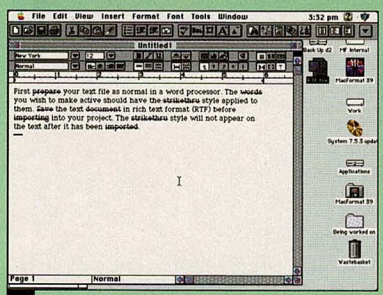


This command switches an object's response state. If the object is active when you perform this command, it becomes inactive and vice versa.

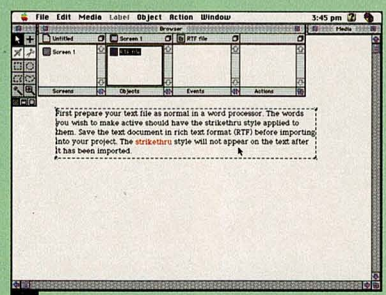
This is the opposite of **Enable, Disable** renders an object inactive and not sensitive to interaction.

Applying Hot Links in Text Files

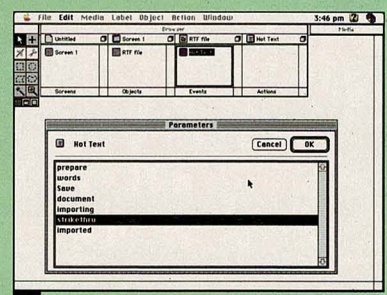
Hot spots are areas of the screen that take you to a different area of the program or, for example, play an animation whenever you click on them. To include them in your text, use the **Hot Text** option. Follow these steps to make your text respond to user interaction:



1 First prepare your text file, as you would normally in a word processor. The words you wish to make active should have the **Strike Thru** style applied to them. **Save** the text document in **Rich Text Format** (**RTF**) before importing into your project. The style will not appear on the text after it has been imported.



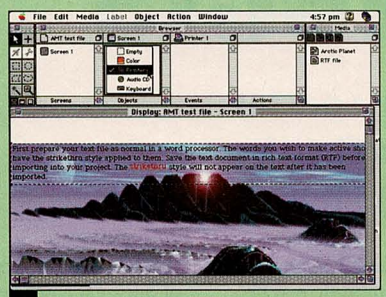
2 If you have a long text string, you should try to make it obvious which words are hot by giving them a different colour or making them highlight when the mouse moves over them. You place the text into your project in the same way as you would an image or movie, by dragging it from the **Media** window onto the display screen.



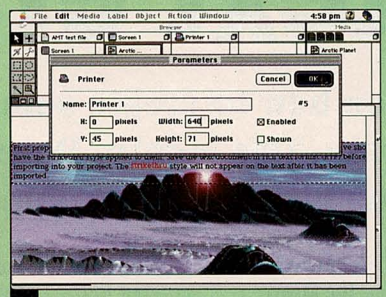
3 Add a **Hot Text** action in the **Actions** mini window and double click on the **Hot Text** icon. You will be presented with a **Parameters** dialogue box which lists the possible active words. Highlight one of the words and close the dialogue box. This selects that word to have an event applied to it when it is clicked on.

PRINTING FROM YOUR PROJECT

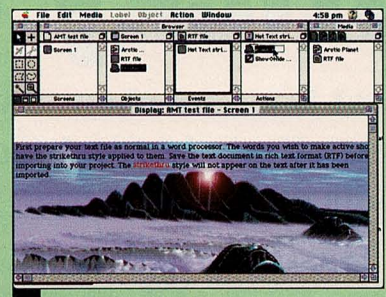
If you want a **Print** option within your project, you can easily set it up using a **Printer** object and the **Print** command.



1 First, double click in the **Objects** mini window to create a new object. Click the mouse and hold it on the new icon which appears. Then you simply select the **Printer** option from the pop up menu.



2 Double-click on the icon to open the **Parameters** dialogue box. You can define the area to be printed by entering values in the appropriate boxes, or position and change the printed area by using the mouse in the display screen.



3 Define the event that starts printing – usually a click on a button or on the area to be printed. Add a **Print** action to the event. To define what is to be printed, drag the **Printer** object from the **Objects** window onto the **Print** action icon.

Show

The **Show** command displays an object that has previously been invisible. You should accompany it by the **Refresh** command if you want an immediate display or the object will not be displayed until the complete set of actions applied to your event are finished.

Show◊Hide

The **Show◊Hide** command toggles the visibility of an object, so if the object is shown it will become invisible and vice versa.

Hide

This makes an object invisible on the screen. Even though the object is invisible it may still be active. For example, if you move the mouse over an invisible active area, another event – such as playing a sound – may occur.

Start

The **Start** command is applied to media such as QuickTime movies, sounds or the duration of a timed image to begin displaying the item.

Start◊Stop

To switch between the playing and stopping of a media object such as a movie use the **Start◊Stop** option. This is similar to the **play/pause** button on a video controller. Sound objects will restart at the beginning of the sound, while movies and images will continue from their stop point.

Stop

As you would expect, this command stops the object it is applied to from playing. If you restart the object with an alternative command it will continue playing from the point where it was originally stopped.

Stop All

All media objects that are time based, such as movies, and sounds and images which are displayed for a specific duration, are immediately stopped when you use this command.

Go to Beginning

The **Go To Beginning** command rewinds a time-based object to its start. It makes life extremely easy when you want to rerun a clip. For example, if you apply a **Stop** command to a QuickTime movie you will have to add a **Go To Beginning** command if you want it to play from the start next time it is played.

Go to End

This command is the opposite of the **Go To Beginning** command. You can use the **Go To End** option to cause a movie or sound to move to its finishing point.

Go to Time

The **Go To Time** command is used if you want to access a specific part of a movie or go to a point in the duration of a timed image. You cannot use it on sound objects. When you set the **Go To Time** command you have to specify the frame of the movie or the time in ticks (there are 60 ticks in a second) of the point in the image duration.

Run to Time

If you want to make an object start and finish playing at specific points, you can set the **Run To Time** command. If you want to just show a portion of a QuickTime movie you can easily define the section in the **Run To Time Parameters** dialogue box.

Go To Angle

The **Go To Angle** command is used to set the viewing angle in a QuickTime VR movie. Set the angle via the **Go To Angle Parameters** box.

Go To Node

Used in QuickTime VR movies the **Go To Node** command changes your position as viewer to another node within the VR movie.

Find

The **Find** command is used to search for text which is hidden in the text track segment that forms part of a QuickTime movie. These text tracks can be left invisible, shown as a caption or included as burnt-in text which overlays the movie without a background. Use the **Find** command to find reference points which can be accessed with the **Run To Time** and **Go To Time** commands.

Drag

This command is used with the **Mouse Moved** event, and makes it possible for the user to drag an object easily around the screen.

Move by

The **Move By** command moves your selected object by a defined amount on the screen. You must **Refresh** the screen to see the result of a **Move By** command. The amount of the move is set in the **Parameters** dialogue box.

Move to

The **Move To** command enables you to send an object to a specific position. The position of the move is set in the **Parameters** dialogue box and you must remember to add a **Refresh** command in order to see the result.

Scroll

The **Scroll** option enables you to move text or images within a fixed area. If you have an image which is larger than the screen, you can drag on the image to reveal hidden areas. Use the **Mouse Moved** event to activate the **Scroll** option.

Refresh

The **Refresh** command redraws areas of the screen which have changed. If there is no **Refresh** command in the action list, your screen will update automatically only after the last action.

Start Ambient Sound

This can be used to add background sound which continues to play while you perform other operations. The **Start Ambient Sound** command must be applied to a media item rather than an object from the **Objects** mini window. If you wish the sound to continue playing, select the **Loop** option from the **Sound Parameters** dialogue box.

Start◊Stop Ambient Sound

The **Start◊Stop** command switches an ambient sound between playing and finishing. It's ideal for making a a background sound on/off button.

Start Ambient Sound

To stop any ambient sound add this command.

Print

This enables you to print out a pre-defined area of the screen. You cannot apply any font or styling to the text other than that on the screen.

Set Volume

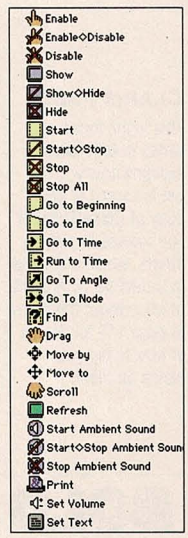
This enables you to either set the volume to a specific value or add to or subtract from the current setting. You select the option you require in the **Set Volume Parameters** dialogue box. Changes to volume are saved even after you quit *AMT*.

Set Text

The **Set Text** command changes the content of a text object. If you want to replace a question with an answer you can use this option. MF

PARAMETERS

To access a **Parameters** dialogue box, simply double click on the object, event or action in the mini windows. You can also access the dialogue box by selecting the item and choosing **Parameters** from the **Edit** menu.



Commands menu

Once you've covered all the options people will believe that you're a rising multimedia star.

Tricky text effects

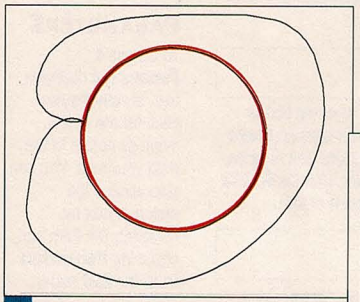
Last issue we showed you how to create some special text effects in *ClarisWorks*. This month, Derek Smith pulls more tricks from up his (slightly grubby) sleeve.

All the effects we looked at last issue used the Draw module of *ClarisWorks*. This month we look at two more techniques that use the Draw module. Then we take a look at how you can use the Paint module within the word processor to create special text effects.

There's an important difference between Draw and Paint graphics, and this applies to all the text you enter in either one of these modules. Text entered in the Draw module can be rotated and manipulated without any loss in quality. The words themselves can also be amended after manipulation, just as if they were entered in the word processor.

Text entered in the Paint module can only be edited while it is being typed in. As soon as you finish typing and select another tool, the text is converted to a bitmap graphic. A bitmap graphic is made up from a grid of dots, each dot being given a colour. The crucial thing is that once it is converted, your text cannot be edited, and when you manipulate it, you will see some loss of quality. However, the clarity of your finished work can be enhanced if you make the grid as fine as possible, and increase the number of dots per inch. The Distressed Text technique shown opposite describes how you can do this.

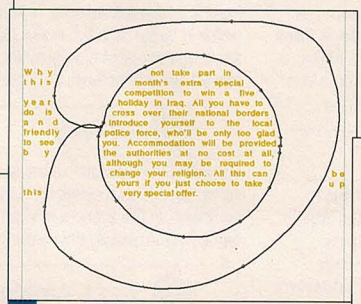
TECHNIQUE 1: TEXT IN A CIRCLE



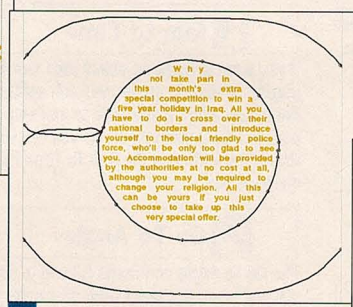
1 First draw a circle to act as a guide. Now using the Freehand tool, trace the circumference of the circle, but don't join the ends; rather double back around the outside, so in effect you have drawn a big C.

In the last issue we showed you how to use the Text Wrap facility to create a drop cap. Text wrapping works perfectly, enabling you to get text to fold around the outside of an object, but what if you want to place it inside your object – for instance, in a circle?

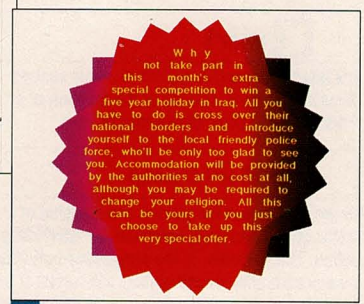
If you use a standard circle or arc, it won't work – it always wraps around the outside of the shape, even if you make the circle transparent or don't completely close the arc. The trick is to use *ClarisWorks'* Freehand tool.



2 Delete the guide circle and give your freehand drawing an Irregular Text Wrap from the Options menu. Text entered in the word processor module will now wrap inside the object, although you may find that some of the text spills out.



3 You can avoid this text spillage by selecting Reshape from the Arrange menu and expanding the outer edge of your C to touch the sides of the page.



4 Finally, make the freehand object's line colour transparent and then add a background effect if you so wish.

CLARIS PAST

This is the fourth in a series of tutorials that explains how you can get more out of your copy of *ClarisWorks*. If you missed any of the others, which appeared in issues 36, 37 and 38 of MACFORMAT, then turn to page 119 for details of how to get your hands on them.

TECHNIQUE 2: EMBOSSED TEXT

Giving the impression of embossed text is a somewhat laborious but worthwhile effect. In the example shown here it involves using nine offset versions of the same text box in a three-by-three grid. The illusion is created simply by altering the shades of the text colour.

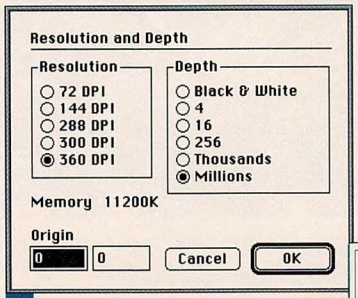
1 Select the Text tool, hold down the [option] key and draw a text box. Type your text, then give it a dark shade of any colour. Click on the pointer tool, then select your new text box. Choose Copy then Paste from the Edit menu to create a duplicate box on top of the original. Press the down arrow on the keyboard to move the duplicate down one pixel, Copy and Paste it, then move the new copy down a pixel. Duplicate another, and using the arrow key, move that one to the left. Repeat the process, moving it to the left again.

2 Create a duplicate of the last text box. Press the up arrow, and at the same time change the text to a much lighter shade. Create another duplicate box above that, then one to the right of it, so you're back where you started.

3 If you Copy and Paste the last text box and move it down one pixel, it should sit in the centre of the three by three grid. Give it a medium shade, the same colour as the one you've been using.

4 If you want to highlight the effect you've created, add a background as shown here. If you feel that the embossing is not pronounced enough, repeat the whole process, steps 1 through to 3, only move all of your duplicates by two pixels each time.

TECHNIQUE 3: DISTRESSED TEXT



You can create the effect of faded or mass printed text by spraying white paint over the words with the Spray Can tool. Unfortunately, in *ClarisWorks* the Spray Can is a bitmap tool, and as such is only available in the Paint module, not in the Draw or Word Processor modules. So, for this technique, and the final two, we'll look at using text in the Paint module. This is less flexible than the Draw module, because once written, text cannot be edited and altered. So spell it correctly the first time!

1 Select the Paint tool (the Paint Brush beneath the Text tool) and draw a paint frame. From the Format menu, select Resolution & Depth. By default this will be set at 72 dots per inch (dpi). This dictates the quality of the graphics. If you want the best available quality select 360dpi.

2 The box will shrink, but you can enlarge it by dragging the corner handles. Bear in mind that a large paint frame at high resolution can require a lot of RAM. Select the Text tool, click and drag it inside the paint frame, and type your text. At this point you can still highlight and edit it. As soon as you click on another tool, the text will be converted to a bitmap.

3 Set the Fill colour to white, select the Spray Can, then spray over your text to create a faded, distressed effect. You can access the Spray Can preferences by double clicking on the tool icon in the tool box.

4 The paint frame is solid white. If you wish to see text that lies behind it, you can change the frame's Fill to transparent. It's possible to create a variety of effects using this technique, such as the ransom note above.

TECHNIQUE 4: GRADIENTS

If you've been reading this series on *ClarisWorks* techniques regularly over the last several issues, you'll know that the gradient feature is rather popular (well, it is with me anyway). It's easy to apply this to regular objects such as rectangles and circles, but to apply it to text can pose a serious problem. To apply a gradient across a whole word, you have to select all the letters in that word at the same time. This is very difficult in practice because the letters are effectively small individual graphics in their own rights. The solution? This is where we shamelessly take advantage of the way that bitmap graphics work in comparison to Draw graphics.

1 If you select the Magic Wand tool and click it in your paint frame, it will select all *adjacent* pixels of the same colour. Because there is white space between each letter, this means that you can only highlight one letter at a time.

2 To make the word become one object, you will need to draw a line of the same colour as the text across the top or bottom of the word. All the letters are now joined together, so when you click the Magic Wand tool on any of the letters, it will select the whole word.

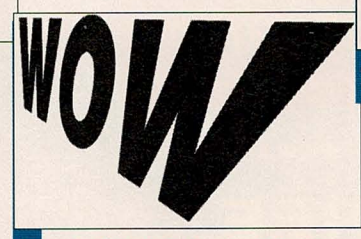
3 Select a Gradient Fill, or instead create your own pattern. To apply the Fill you can either select the Paint Bucket tool and click your selection, or choose Fill from the Transform menu.

4 The last job is to get rid of the line that joins your letters. Choose a line colour of white (or of a colour to match your background) and draw a straight line over the top of the first one to blank it out.

TECHNIQUE 5: MANIPULATION

Most of the techniques discussed last month and this month have revolved around the Draw module. This is because it's more flexible than the Paint module, and offers better quality output to a printer. Before this tutorial comes to an end, it's worth noting that the Paint module has several facilities that aren't available in the Draw module. Some of them can cause a loss in quality, but this matters less if they are intended for use on screen.

1 Once you've created your text, draw a selection box around it. For a tight fit, hold down the [command] key as you draw a rectangular selection box. From the Transform menu you can select a variety of effects, which include Shear...



2 ...And Distort. Watch out with this one though. Things can look extremely odd if the word is too long or complex.

3 Then there's Perspective. Here the graphic has been split in half, and each half has been given a different perspective to create this effect.

4 Performing these manipulations can have the effect of making the edges of your text jagged, particularly at lower resolutions. To combat this you can draw a selection box around the manipulated text, then choose Blend from the Transform menu. This smooths the edges by blurring them slightly.

It's worth adding that, although you have the option to rotate and flip your text, these options are also available in the Draw module, so you should use them from there. The quality will always be better, you can edit the text and the process will require less RAM.

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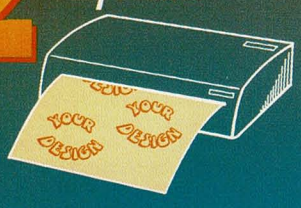

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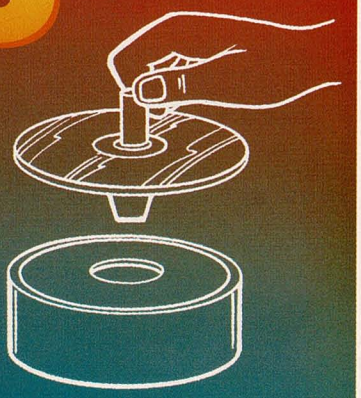

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MAC ANSWERS

More effective than a cold shower, Lindsay Bruce brings you MacAnswers... the section that reaches parts of your Mac that other sections just don't reach.

Welcome once again to MacAnswers, the section of MACFORMAT devoted to solving all your Mac troubles. This issue is all about the mysteries of the Internet and the black art that is comms, but we like to think MacAnswers is a bit of an all-rounder and we can cover other stuff too. Not to say that there aren't people out there experiencing problems with the Internet, 'cos there are, but there's more to life than modems (thank goodness). Besides, someone needs to tell us all about it before we can tell you...

If you've got a problem, fill in the form on page 80 and send it in, or e-mail us at **macformat@futurenet.co.uk** with MacAnswers in the subject title. Sorry, but we can't reply personally or answer technical questions over the phone, because we're out surfin'. At least Colin the Disk Editor is – the big showoff catches all the best waves. Rich the News Editor can't swim and burns easily, so he's sheltering under a parasol on the beach with a king-size Cornetto and a Beach Boys tape.

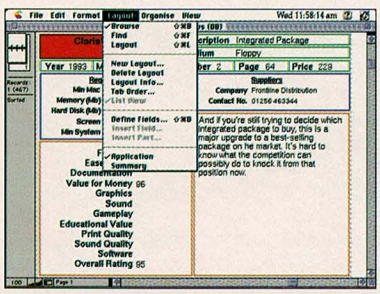
Bundle of joy

BACKING UP

Q My sister has a PowerBook 190. I have made master copy disks of all the PowerBook's pre-loaded applications, using the supplied software, but we've noticed there's no easy way to back up a master copy of ClarisWorks, *also supplied. This strikes me as being daft – it's the most-used piece of software on the machine and it would be sorely missed if it should ever go wrong. What is Apple playing at?*
Ben Poole
Via FutureNet

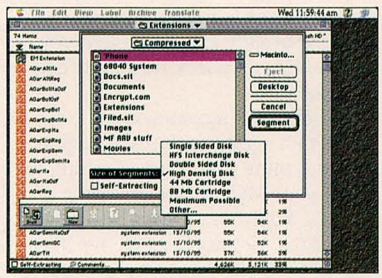
A The most common way to back stuff up is to floppy disk but, as you've pointed out, some pre-installed software isn't going to fit conveniently on a floppy disk because it's too big. Your second problem is that most applications tend to spread their support files all over the place – usually in the System Folder.

ClarisWorks has its own folder stuffed full of files, and it also keeps files in the Preferences folder within your System Folder. You'll need to back up these as well. A compression program such as *StuffIt Lite* or *CompactPro* can help you do this.



ClarisWorks comes with nearly every Mac when you buy it these days. It's just a nuisance the whole thing won't fit on a single floppy disk when you want to back it up. See 'Bundle of joy'.

As well as cutting down the amount of disk space the files take up – compressing them to as little as a third of their original size – these programs offer a file segmenting feature which splits the archive up into floppy-disk-sized chunks. You can then copy each segment onto a disk, and when you need to reinstall the software, your Mac will ask for the disks in sequence and re-assemble the original files on your hard drive. You'll find *StuffIt Lite 3.5* on this issue's Cover CD. Alternatively, you can buy *StuffIt Deluxe* from MacLine for £76.38 plus £5 delivery. Contact MacLine on 0181 401 1111.



StuffIt is a compression program which enables you to squeeze up to three times as much data into a given space. Handy for that bundled version of *ClarisWorks*. See 'Bundle of joy'.

Sorry, this is too new

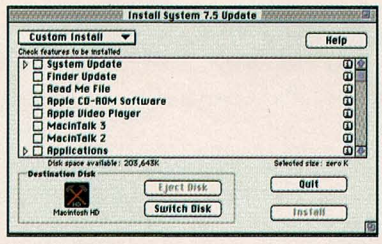
SYSTEM UPGRADES

Q I recently bought System 7.5 and a new 500Mb hard drive for my PowerMac 7100/80, but when I try to install the System disk it says that 'This startup disk will not work on this Macintosh. Use the latest installer to update this disk for this model.'

This happens even with the Disk Tools disk, and it doesn't read the CD-ROM disc.
Priavadan Varsani
London

A Hmm, most PowerMac 7100/80's shipped with System 7.5 already installed, so I'm a bit confused why you bought the System 7.5 Upgrade. I suspect you mean you have bought the System 7.5.1 upgrade, which is a set of bug fixes for System 7.5.

There are two ways to run the installer, both of which require you to use the System CD. If your System CD is the only one your Mac has trouble recognising, then ask Apple to swap it for you; it may be damaged. You can get in touch with Apple on 0800 127753. The first method of running the Installer is to use the CD-ROM as a Startup disk, and the other is to insert the CD into your Mac as normal and then run the Installer from it. You need to make sure you have the Apple CD-ROM Extension and the ISO 9660 Extension installed in your Extensions folder within the System Folder.



Upgrading your Mac's operating system brings you new features and one or two fixes for bugs Apple forgot to tell you about in the previous version. Ahem. See 'Sorry, this is too new'.

Before you can use your new CD or Disk Tools floppy as a Startup disk, you have to make sure that the most recent version of the Operating System is installed on your hard disk. To do this, start your Mac up as normal and then insert the CD (or the Install Me First floppy if you don't have a CD-ROM drive) and double-click on the Installer. Once the installation is complete, you'll be asked to restart your Mac.

If you try starting a Mac running System 7.5 up from a disk with an earlier system version, you'll get a message very similar to the one you

CRASH!

In MacAnswers this issue, the margin notes illustrate some of the more common error codes that your Mac is liable to throw at you in a fit of temper.

ERROR NO 15

Segment loader error. Your Mac's programs are loaded into its memory in segments. If the Segment Loader can't load part of the program because it can't find it, you'll see this error and the program will quit.

ERROR NO -34

Disk full error. You get this when your Mac doesn't have enough room to save your documents on the volume you've been saving to. The only thing you can do is either free up some disk space by throwing away old files, or try to save the document to a different disk.

ERROR NO 25

Out of memory. This happens when your Mac's applications need more RAM, but all the RAM you've got is in use already. This usually results in your Mac crashing or, if you're lucky, one of your open applications quitting.

Continued on next page

ERROR NO 28

Stack ran into heap. This is similar to the 'out of memory' error. It happens when your Mac doesn't have enough memory to process events and so invades the System heap. Sounds nasty, doesn't it? It usually is, and as it tends to be fatal, a **Restart** is your only option.

ERROR NO -41

Not enough memory. You get this one when you're trying to open a file that is bigger than the amount of free memory you have available. Programs such as *Photoshop* deal with this by using a portion of your hard disk to temporarily store data from memory.

got. If you try starting up a Mac running System 7.5.1 from a System 7.5 disk, then you'll also get this error. The only way round it is to zap the PRAM (Parameter RAM) by holding down the keyboard combination **[command] [option] P R** on Startup, so that your Mac 'forgets' what System version it's using. However, no PowerMac will work with a System older than 7.1, so bear this in mind if you're thinking of making use of that old System 6 disk you've been employing as a coaster. For a more detailed look at how to upgrade your system, take a look at our guide to upgrading your Mac to System 7.5.3 on page 14. This particular upgrade will only work if your Mac's already running System 7.5, 7.5.1 or 7.5.2, but the principles involved are basically the same.

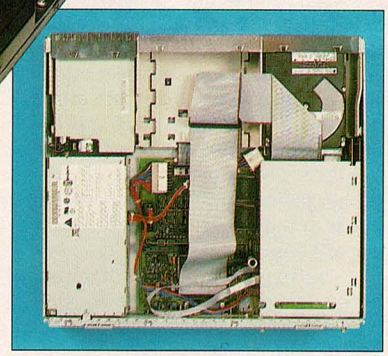
When one is not enough

SECOND HARD DRIVES

Q *How do I go about fitting a second internal hard drive to my Mac?*

Simon Philips
Leamington Spa, Warwickshire

A Most Macs come with one or more empty drive bays into which you can install a second hard drive, CD-ROM drive or optical drive. The notable exception here is Macs in the Performa series, which don't have spare internal drive bays as a rule. The Performa 630, 5200 and 5300 all fall into this class. If you own one of these Macs, your only option is to buy an external drive. All PowerMacs have at least one spare bay, as do most of the Quadras. However, some of these Macs have an optional CD-ROM drive which takes up the internal drive bay.



Fitting a second internal hard drive to your Mac gives you more storage without taking up more desk space, but they're not quite as easy to install as an external drive. See 'When one is not enough'.

Once the SCSI ID is set, locating the correct port and fitting your own internal drive is easy.

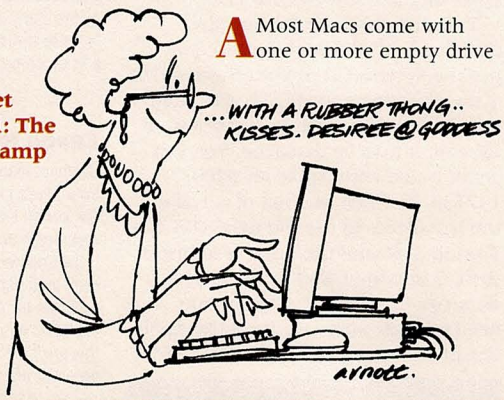
Drive bays come in two sizes – 3.5-inch and 5.25-inch. The latter is used mostly for CD-ROM drives. Most hard drives are of the 3.5-inch ilk, except for some really large drives capable of storing 4Gb or more – beyond the physical limits of a 3.5-inch drive. All you actually need to fit a second internal hard drive is a mounting kit, which is usually supplied when you buy the drive – check with your dealer to make sure.

It's generally recommended that you get an Apple-authorised engineer to fit anything that requires taking the lid off your Mac. Although fitting an internal hard drive is easy, you have to set its SCSI identity before your Mac can recognise it. Once you have more than one device operating through the SCSI connection port on your Mac, each one needs a different ID so your Mac can tell them apart. An internal device is best set up by a professional since it's not a simple case of flicking a switch, as it is on an external drive. Your best bet is to either ask your dealer to fit the drive for you, or to set it up with a suitable SCSI ID so you can fit it yourself.

Actually fitting the drive is easy. Shut down your Mac and take the lid off. Locate the bay you want to fit the drive to (in many cases you'll only have one choice – see the picture above) and simply slide it in. Your Mac already has all the gubbins you need to connect the drive up. These are hanging loose inside; simply plug the power and SCSI cables into the back of the drive, put the lid back on and you're away. The drive may or may not be formatted when you get it, and it needs to be before you can use it. If it's not, your Mac will ask you if you want to format it when you start up. It only takes a minute or so, and then it's ready for you to fill it up with as much stuff as you like.

If all that sounds like far too much work or you don't have any spare drive bays in your Mac, then fret not.

Internet Types 1: The Cybervamp



HOW TO BREAK THE CRYPTIC ERROR CODE – TYPES 1 TO 11

The worst thing about your Mac's otherwise friendly interface is those annoying error messages that Apple seems to have forgotten to translate into English. All of the error messages your Mac's Operating System throws at you have error codes: for example, a common error is a **Type 1**.

These error codes were devised by Apple's programmers to make tracking down bugs easier. The error message is your Mac's attempt to tell you what went wrong. There are literally thousands of 'em, most of which you will never see and they wouldn't mean anything to you if you did. However, there are several which crop up more frequently.

■ **Type 1: Bus error.**
This happens when your Mac tries to access memory that doesn't exist. It can occur when your Mac gets garbled or incorrect instructions on where to find specific data.

■ **Type 2: Address error.**
This is down to the way your Mac accesses its memory. It has to allocate memory in bytes (each made up of eight bits), but it can deal with up to four bytes of data in one go. The thing is, it's only allowed to read or write more than one byte at once to an *even* memory address. If it tries to read or write more than one byte to an *odd* address, then you get an address error.

■ **Type 3: Illegal instruction.**
Each of the processor types used in your Mac (the 68000, 68020, 68030, 68040, and the PowerPC series chips) have sets of instructions they are programmed to recognise. If your Mac comes across an instruction it doesn't recognise, you get this error. This can happen when software has been programmed with one specific processor in mind – say the 68040 – and you are running it on a Mac with a different processor – say the 68030.

■ **Type 4: Zero divide error.**
Your Mac does a lot of mathematical calculations. If it tries to divide a number by zero, it gets an error because it treats zero as being an infinitely small number. Dividing any number by zero will produce an infinitely large number as a result, something which your Mac is not equipped to handle. There is another instruction your Mac's processor can use to handle zero division, but it's much slower. Programmers will usually try to ensure that the situation never arises in the first place.

■ **Type 11: Hardware exception error.**
This occurs either when something is wrong with your Mac's hardware, or your Mac lacks some piece of hardware or a feature required by the software that you're running. It's a common error when you're running older (68K) software on a PowerMac. Usually this error occurs because the software can't gain control of the FPU (Floating Point Unit) in the processor. This accounts for the 'Floating point unit not installed' error you might see.

That's just a few of the most common ones, but how does this help you to put things right? As a rule of thumb, error types 1 to 10 are memory-related errors, so the first thing to try is giving the program you're using more memory in the Get Info box, under the File menu in the **Finder**. Try quitting all other applications you might be running as well. Failing this, try restarting your Mac with the Extensions turned off (hold down the [shift] key on Startup).

If you have a PowerMac and the software you are trying to run is an old version, try turning off Modern Memory Manager. Some programs, especially games, don't work if you are using Virtual Memory or *RAM Doubler*, so try turning this off if you have it on.

You can always buy an external drive for your Mac. They cost a little more because of the casing and power supply, but connecting them up is a doddle and your five-year-old could do it with their hands tied behind their back etc. (this is not a suggestion). You can connect a total of six SCSI devices to any Mac produced since the Mac Plus, which should keep you knee-deep in storage space for years.

Out of the closet

PROGRAMMING

Q I am eager to learn how to write programs for the Mac – simple stuff, small games and the like – but I don't know where to start. What software do I need, and where can I get it? I have also seen numerous books on 'C' and 'C++', but as I have said, I need to be pointed in the correct direction. Can you help?

W Green
Via FutureNet

A One of the great things about the Mac is that it's comparatively easy to program. Buried in your Mac's ROM and Operating System are thousands of routines, all of which are available to the programmer. These are capable of performing many common functions, such as drawing windows and creating dialogue boxes. By using these ready-made routines, programmers don't have to write as much program code. It also means that all Mac programs display a similar interface, making them easier to use.

The language your Mac talks is called binary code. It consists of ones and noughts that are interpreted as numbers, words and instructions when strung together. Programming using binary is slow work, as the code is difficult to follow and it's easy to make mistakes. All programmers use special programming languages that your Mac can translate into binary instructions using a 'compiler'. The three most common programming languages are C, Pascal and Assembly. Assembly is the closest you'll get to programming in binary. It uses mainly three-character instructions and hexadecimal numbers (hexadecimal is the base 16 system in maths – digits from 0 to 9, then A to represent 10 and so on up to F for 15). Needless to say, Assembly language is horrendously unfriendly.

Pascal is much easier and is based on a sort of pidgin English – abbreviated instructions that your Mac can translate. C is widely recognised as the best programming language for the Mac, primarily because it's better at handling graphics and compiles your finished program into a smaller end product. Like Pascal, it's based on simplified English and is reasonably easy to follow after you've picked up the basics. C+ and C++ are extended versions of the language, offering more basic commands.

If you want to get into Mac programming, the first thing you have to do is learn how your Mac and its Operating System work. Apple has produced an entire series of books called *Inside Macintosh* dedicated to this. Published by Addison-Wesley, the series comprises some 30 volumes and they sell for around £20-£30 each. Not cheap, but then the series covers everything and you may only need a couple of books, depending on the kind of programs you want to write. You can get the whole series on CD-ROM for about £100, but finding the right page out of the thousands available is not easy. Your best bet might be to buy the CD plus a couple of the books for quick reference. You should definitely get *Macintosh Toolbox Essentials* and probably *Files* to start with. There are also countless books by individual authors on the subject of Mac programming.

Once you've done a bit of reading and are sure you want to progress, you need to get hold of some programming software. If you want to get into C, this really boils down to two products – *Symantec C for Macintosh* or *CodeWarrior*. You also need to decide if you'll be programming on or for Mac or PowerMac – each needs its own compiler programs. Both products come with copious examples and source code for you to experiment with and pull apart. In programming, the best way to learn is look at other people's work. *Discover Programming*, a programming kit that enables you to create code for any non-PowerMac, is ideal if you're just venturing into the world of programming.

The last word in sources of information is the Internet, and programming is no exception to this. You'll find thousands of examples, tips, tricks and hacks, designed to make your program run faster or fix that obscure bug you've stumbled upon.

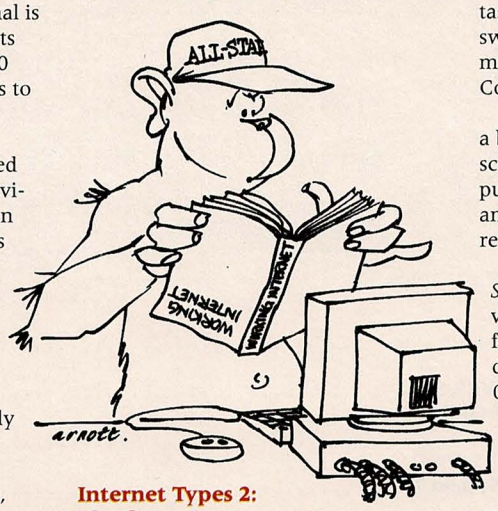
If all this seems like far too much hassle, then you could try your hand at something more user-friendly. *HyperCard* is a good, versatile program for beginners, and by using it you can learn the basics and good program structure.

Moving on a bit further, you could try *AppleScript*. It's (almost) as simple as *HyperCard* but enables you to take control of other programs and perform tasks in the Finder – for instance switching the colour depth of the monitor without having to use the Control Panel.

One final point: all programming is a bitch. It takes time, lots of head-scratching and occasional bursts of pure inspiration. Patience is essential and a logical mind a bonus; but the rewards can be great.

Symantec C++ for PowerMac version 8 (includes version 7.0 for Macs) is £468.82. For more details contact Symantec on 01628 592320.

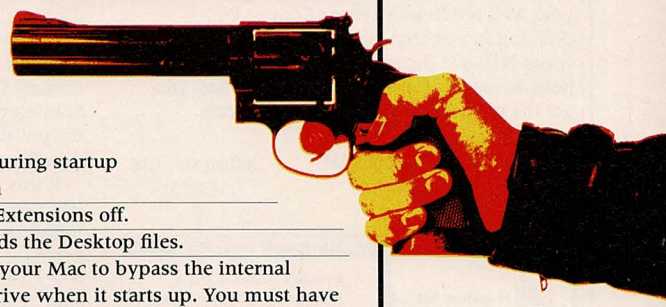
CodeWarrior Gold (for PowerMac and Mac) is £323.13 plus £8.81 for shipping costs. *CodeWarrior Academic 96-97* is £70.44 plus £8.81 shipping.



Internet Types 2: The five-minute expert

TROUBLE-SHOOTING KEYSTROKES

Having a few keystrokes up your sleeve not only creases your shirt, but is incredibly handy when you run into trouble. It also makes you look dead flash in front of your mates in the office.



Startup keystrokes – hold these down during startup

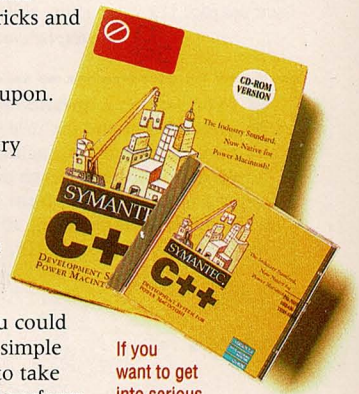
Keys	Action
[shift]	Turns Extensions off.
[command] [option]	Rebuilds the Desktop files.
[command] [option] [shift] [delete]	Forces your Mac to bypass the internal hard drive when it starts up. You must have another disk with a System Folder on it.
[command] [option] P R	Zaps the PRAM (Parameter RAM – a chip inside your Mac which stores the date, time, and a few easily replaced details about your Mac's hardware).
[command] [option] T V	Switches your Mac's screen display from its monitor to a connected television set (Audio Visual Macs only).

ERROR NO -43

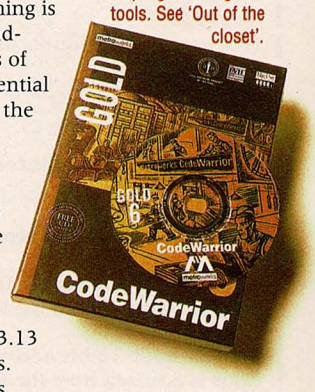
File/folder not found. Your Mac couldn't actually find the file or folder you were trying to open. If you get this error, the chances are that the directory structure of your hard disk is damaged and you should repair it.

To do this, first try rebuilding the Desktop – restart your Mac holding down the **[command]** and **[option]** keys.

If this doesn't work, try using Disk First Aid; it's provided by Apple for this reason, though a comprehensive utility like *Norton Utilities* might do a more thorough job.



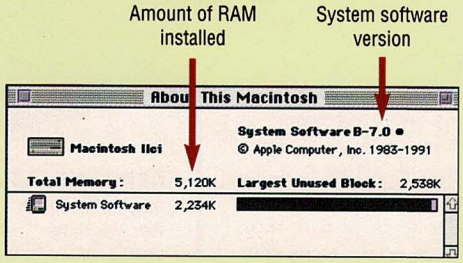
If you want to get into serious programming, then this is the sort of stuff you'll need – software compilers, debuggers, and programming tools. See 'Out of the closet'.



Continued on next page

The do-it-yourself problem solving guide...

One of the most common causes of problems on your Mac are Extensions or Control Panels clashing in your System Folder. It's easy to check if this is the case. Restart your Mac and hold down **[shift]**. Release the key when you get the message, 'Welcome to Macintosh.



Extensions off.' If everything works, then the problem lies in your System Folder. The only way to work out which item is the culprit is by trial and error. Remove a few Extensions and/or Control Panels, then restart your Mac, without holding down **[shift]**. Keep on doing this until the problem no longer occurs and you've found the offending software.

If this doesn't work, try rebuilding your Desktop. Start up your Mac holding down **[command]** and **[option]**. You'll get a message asking if you want to rebuild the Desktop. Click **[OK]**, wait for it to finish and see if this solves your problem.

If you're still stuck, use the form below to write to us. We'll need to know a few facts about your Mac, so when you're in the Finder, select **About This Macintosh** from the **Apple** Menu.

CODEWARRIOR LITE

Try *CodeWarrior* for yourself – the complete *Lite* version was yours on MACFORMAT 35's Cover CD-ROM. This version enables you to write and save out a complete program for 68K Macs. You can't create your own files from scratch, but you can copy, rename and then open the two projects included with it, modify these without restriction and then save your new routine. If you missed that issue, see page 119.

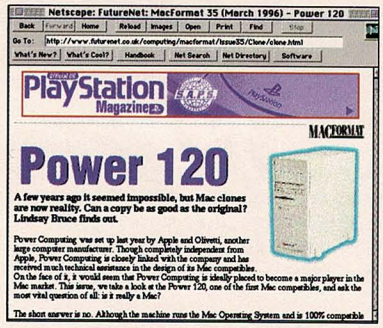
CodeWarrior Academic Pro is £99.88 plus £8.81 shipping.
Discover Programming is £70.44 plus £8.81 shipping.
For more details on the *CodeWarrior* range of products, contact Full Moon Software on 01628 660242.
HyperCard 2.3 is £95. For more details contact Apple on 0800 127753.
For more details on the *Inside Macintosh* series of books, contact Addison-Wesley on 0800 579579.

Getter slower

MODEM SPEED

Q *I have recently bought a 28.8K US Robotics fax-modem for my Performa 630 to gain access to the Internet. I am using* Netscape 2.0 *and* Fetch, *but despite everything I have tried, I can't get download rates faster than 5 Kilobytes per second. Is this a problem with my service provider, or is it my Mac that's too slow?*
Grant Small
Colinton, Edinburgh

A Actually, it's your modem. First off, you're damned lucky to get even 5K a second. Because of the Internet's explosive growth over the last two years, it's become less an information superhighway than an information B-road – the on-line equivalent of the M25 on the Friday evening of a Bank Holiday weekend. The Internet is based on thousands of servers which are constantly being upgraded and added to. Unfortunately, because of the huge demand for on-line time by millions of users, these servers are stretched to bursting point.


Netscape: FutureNet: MacFormat 35 (March 1996) - Power 120
PlayStation Magazine
MACFORMAT
Power 120
A few years ago it seemed impossible, but Mac clones are now reality. Can a copy be as good as the original? Lindsay Bruce finds out.

Downloading files from the Internet can be a slow business even with the fastest of modems at your disposal. See 'Getting slower'.

I suspect you've fallen into the old 'bits-per-second' trap of expecting 28.8 Kilobytes per second from a 28.8K modem. In actual fact, you'll get nothing near this. Modem speed is measured in *bits*-per-second, rather than bytes-per-second as you might expect. To work out the maximum theoretical transfer rate your modem is capable of, you need to divide its bits-per-second speed by eight (eight bits to a byte, you see). For a 28.8K modem, the maximum theoretical transfer rate is 3.6 Kilobytes per second. In practice, you may see a rate that's rather higher than that because of clever data compression techniques. Currently the only way to push your transfer rate beyond this level is through the use of the rather pricey ISDN (Integrated Services Digital Network) technology, but new developments in the Internet world mean that things could soon be speeding up. For more on the Net, see this issue's cover feature, starting on page 38. **MF**

If you send in a question for the MACFORMAT experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: MacAnswers, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW or fax it to us on 01225 446019.

Name .....

Address .....

.....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see **About This Macintosh** screenshot above): .....

Amount of RAM
(see **About This Macintosh** screenshot above): .....

Are you using Virtual Memory? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Details of any relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question. Please include as much relevant information as possible, and continue on a separate sheet if necessary.

.....

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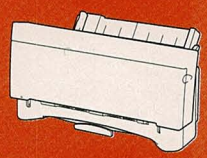

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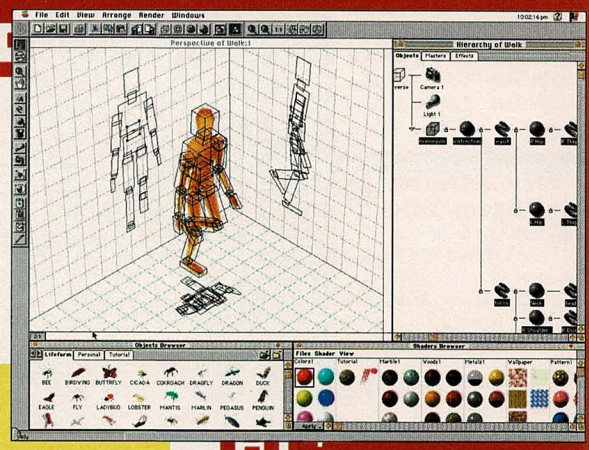
Authoritative tests of the latest hardware and software, from modems to multimedia.



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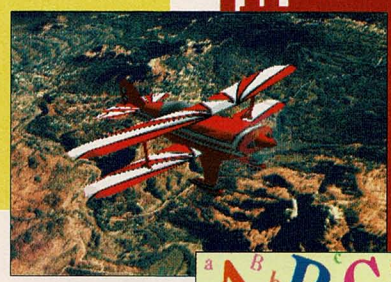

Ray Dream Studio vs *Extreme 3D* – the latest 3D graphics programs head-to-head. Page 94

Flight Unlimited – a sim with terrifyingly realistic graphics. (Look out for that hill!) Page 122

How can your Mac help your kids learn to read? We test seven of the best literacy programs. Page 100

The Epson EPL 5500, an affordable quality laser printer for your home. Page 92

NAME OF PRODUCT

Price: List price, inc VAT. **Out:** release date. **Requires:** Minimum Mac, amount of RAM, System version, hard disk space (if 5Mb or more), monitor size/colours, other relevant. **Contact** for more information, not purchase.

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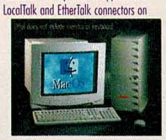

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Thunder 32MHz 030 with FPU for LC/LCII/P400	£ 99	£ 117
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COMMUNICATIONS

	EX VAT	INC VAT
Global Village Teleport Platinum 28.8 BABT approved	£ 149	£ 176
Global Village Platinum 28.8 (PB 190/5300)	£ 399	£ 469
Motorola 3400 Pro 28.8 Fax Modem	£ 139	£ 164

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Ethernet Transceiver	£ 28	£ 33
Ethernet Transceiver 10-Base-T & 4 port hub	£ 99	£ 117

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Illustration shows a PowerTrap 7A securing a PowerMacintosh 7100

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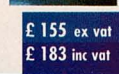

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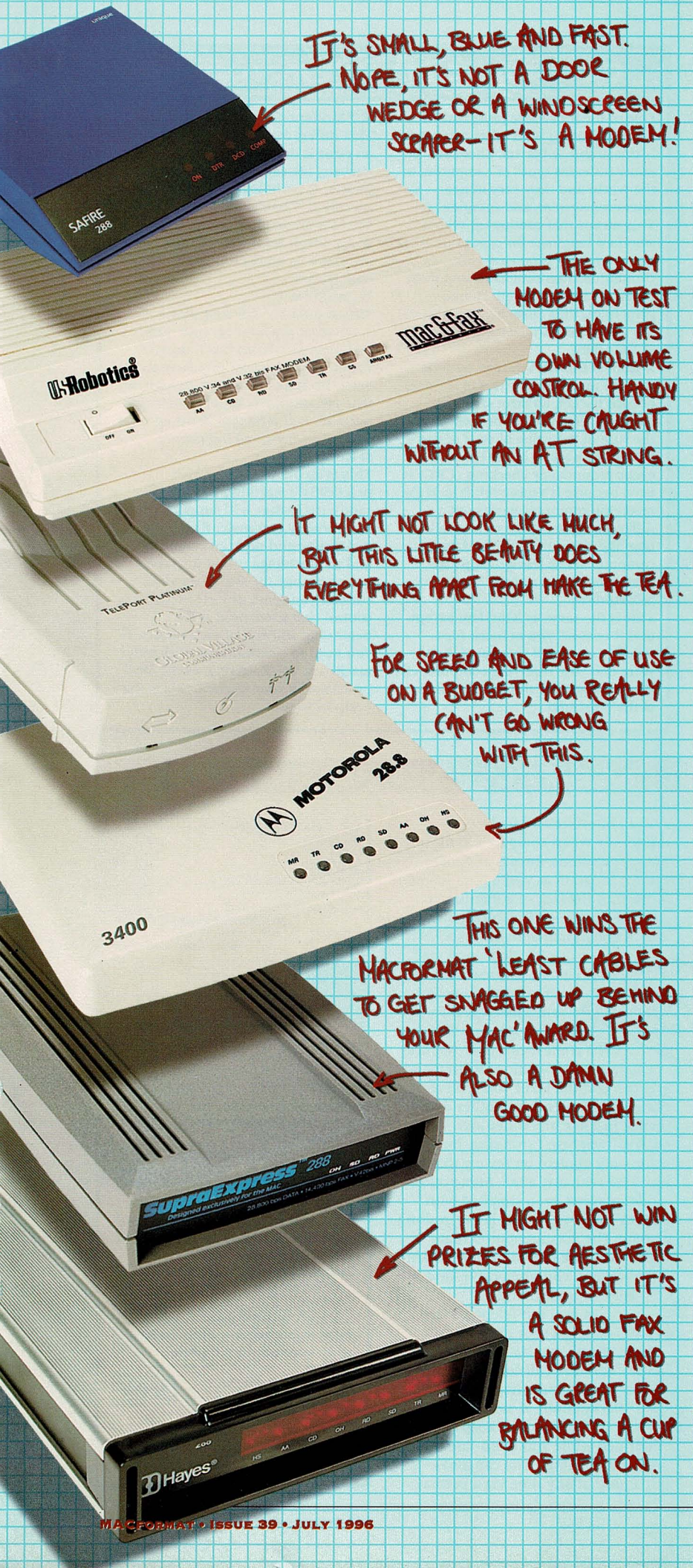
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FOR SPEED AND EASE OF USE ON A BUDGET, YOU REALLY CAN'T GO WRONG WITH THIS.
MOTOROLA 28.8
3400
THIS ONE WINS THE MACFORMAT 'LEAST CABLES TO GET SNAGGED UP BEHIND YOUR MAC' AWARD. IT'S ALSO A DAMN GOOD MODEM.
SupraExpress 288
IT MIGHT NOT WIN PRIZES FOR AESTHETIC APPEAL, BUT IT'S A SOLID FAX MODEM AND IS GREAT FOR BALANCING A CUP OF TEA ON.
Hayes

Get your fax straight!

Fax-modems enable you to join the vast world of the Internet, send faxes and even brag about the size of your transfer rates down the pub. Lindsay Bruce checks out six of the best.

The Internet is everywhere – you can't seem to get away from it. Whenever you switch on the TV or the radio, you hear something about 'the information superhighway', and with the price of modems dropping through the floor, it's not surprising that more and more people are getting connected every day. But where do you start? What does all the jargon that comes with them mean? Which particular modem is right for your needs?

Only a couple of years ago, a modem would have cost you an absolute fortune. In fact, a quick glance at the first issue of MACFORMAT reveals an advertisement for a V32 fax-modem at the bargain price of £705. Just three years on, you can get a much faster modem for a mere £175. You can also do an awful lot more with today's modems.

The massive growth of the Internet has spawned hundreds of thousands of on-line user groups, FTP (File Transfer Protocol) sites, special interest groups, Mac resource sites, and news forums. All of which are covered in out Internet feature, starting on page 38 of this issue. With an Internet connection and a modem, the world is literally at your fingertips. With a fax-modem, you can also send and receive faxes direct from your Mac's Desktop.

What do modems do?

Like any computer, your Mac is a digital machine. It operates and communicates using the ones and zeros of binary code. The telephone system, however, is an analogue medium which is designed to carry sounds over long distance. The

HOW FAST IS 28.8K?

Modem speed is measured in bits per second (bps), but for convenience it's usually expressed in kilo-bits per second (Kbps, or thousands of bits per second). Thus, a 28,800 bps modem can also be called a 28.8Kbps or 28.8K modem. This should not be confused with kilobytes (again written as Kb or K), and it doesn't mean that a 28.8K modem can send and receive 28 kilobytes per second.

ON-LINE WITH MACFORMAT!

Have we whetted your appetite for more? How would you like to get on-line and become part of the Web community for the price of a postcard? Well, turn to page 138 and you could win a year's free Internet access courtesy of Demon Internet, and a Motorola 3400 fax-modem!

Continued on next page

purpose of a modem is to translate the ones and zeros from your Mac into acoustic data. This acoustic data can then be sent down a telephone line to a modem at the other end, which then translates it back into binary code.

The word modem derives from MOdulator/DEModulator, the technical term for a device that converts digital data into an analogue signal and back again. Modems formerly used only two frequencies – one to represent the number one and the other to represent zero. The number of times a second the modem could switch between these two was taken as an indication of its speed and was measured in the unit known as Baud. These days, however, modems use multiple frequency patterns to transmit data, so their speed is now measured in the much more meaningful bits per second (bps). You should note that this measurement is *bits* per second, *not* bytes per second.

To work out the speed of a modem in bytes per second, simply divide the bps rating by eight (eight bits in a byte). The current highest standard is 28,800 bits per second, which works out at about 3.6 kilobytes per second. Because of new compression techniques, though, in reality transfer rates of up to 6K per second are possible on a 28.8K modem, depending on the size of the files and where you're downloading them from.

ATTENTION PLEASE!

The AT command set was developed by Hayes as a means for your computer to send instructions to a modem. It's a series of letters, numbers and symbols that your modem recognises as commands to connect to another modem in a specific way. All modems use AT commands, but they can be a bit unfriendly to use, so most comms programs try and hide them from the novice.

COMMUNICATION PROTOCOLS

One of the inevitable problems in communicating with other computers is the language barrier. There are many different types of computers in the world and they vary in age, operating system, and complexity. This means that coming up with a standard language for communicating between them is no easy task. Communication protocols tend to be based on comparatively simple principles, thus ensuring that almost any computer can deal with them.

XModem

XModem transfers data in packets that are up to 1K in size. On the end of each packet, an error check is attached. This used to be a checksum, the sum of the value of each of the bits in the packet, but these days cyclic redundancy checking (CRC) is used because it's more reliable. If the receiving computer works out a different value for the error check than the one sent with the data, your computer sends the whole packet again until it's accepted.

YModem

This is the same as XModem except that it enables you to batch files together and send them as if they were one. The receiving computer can then re-assemble the individual files at the other end.

YModem-G

This differs from YModem in that if an error is detected in one of the data packets, instead of just resending that packet, the whole transfer is cancelled. YModem-G is also faster because the sending computer doesn't wait for the receiving computer to send a request for the next packet.

ZModem

This should be your first choice of connection protocol because, like YModem-G, it's fast but it doesn't break off the transfer if it detects and error. Its main advantage, though, is that you can quite happily interrupt transfers and then pick them up later on as if nothing had happened.

Kermit

This is an old protocol which practically everything barring your sandwich toaster will support. It's used widely to transfer files between mainframe and desktop computers and its advantage is that it enables you to change the size of the data packets you send, as well as the control characters used at the beginning and end of each packet. If you need to communicate with older machines, UNIX servers, or the food processor in your kitchen, this is the protocol to use.

GLOBAL VILLAGE TELEPORT PLATINUM

The look of this modem is very much in keeping with your Mac, housed in a similar stylish grey casing. It doesn't have the vast array of flashing lights that you'll find on most modems, and unlike the others reviewed here (with the exception of the SupraExpress), this one has a data connection cable permanently attached at the back. It also has a through-socket for your telephone, and an on/off switch at the back.

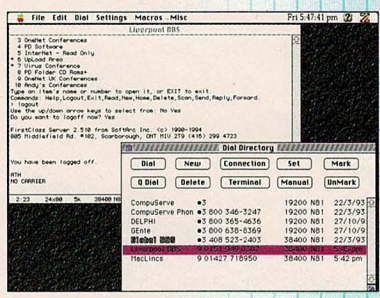
MACFORMAT Classic

The Teleport Platinum comes with the shareware comms program *ZTerm*, and *GlobalFax* software.

Global Village's Teleport Platinum is a stylish little beast and comes with more software than you could poke a null-modem cable at – whatever that is.

ZTerm's interface looks a little unfriendly when compared to most Mac applications, but it's as good a comms program as you'll find. Its only problem is the lack of a manual. In contrast, the *GlobalFax* software comes with a hefty manual, which is a surprisingly a good read. The fax software itself is very comprehensive and a piece of cake to use. The Teleport Platinum even comes with OCR (Optical Character Recognition) software so you can edit the faxes you receive and paste their contents into other documents, just like any other text. The OCR software isn't stunning, but this is the only modem on review that is provided with any at all. Some other modems aren't even supplied with comms software, so this is a refreshing change. The documentation that comes with the Global Village modem is excellent, comprehensive, and easy-to-understand.

In use, the Teleport Platinum is a slick operator. It's effortlessly fast and smooth and files will continue downloading quite happily in the background. A small progress bar in the menubar keeps you informed while you're on-line but doing other things. You can also disconnect at any time via a permanent menu – even if you're using another application at the time.



With the Teleport Platinum you get *ZTerm* (above) for comms, *Global Fax, and* an OCR program.

TELEPORT PLATINUM

Price: £234 (Street price £200). **Out:** now.
Requires: any Mac or PowerMac, System 7 or later, 4Mb or more of free RAM, and 2Mb of hard disk space.
Contact: InfoBank on 0181 991 0578.

EASE OF USE 93%
Easy to set up, and you get oodles of good software with it. Excellent, easy-to-understand documentation.

VALUE FOR MONEY 90%
Not exactly cheap, but then you get a hell of a lot with it.

MACFORMAT RATING 92%

MOTOROLA 3400

Motorola's 28.8K fax-modem was one of the larger modems on test, second only to the Hayes Optima. Housed in a light grey case sporting status lights and an on/off switch, the 3400 is a straightforward, uncomplicated piece of equipment. At the back there is a telephone-through connection and a button for resetting the modem to its factory defaults.

Also in the box is *Microphone LT* and *STart Faxing* software. *Microphone* comes equipped with a set of drivers for Motorola's series of modems, so setting it up is simply a case of plugging it in, installing the software and choosing the right driver. As well as on-line reference, *Microphone* comes with a printed manual which takes you through each of the program's features step-by-step. It's a well put together manual, but sadly doesn't explain any of the important terminology.

STart Faxing is a basic fax program, but in its favour its manual, which is very detailed, does assume that you know very little about faxes or modems. It explains all the jargon as you reach it and is very easy to read – not a noticeable quality in some of the other modems' manuals. In contrast, the manual for the modem itself is very technical, full of abbreviations and gets heavy on the eyes after a while.

Fortunately though, setting up the Motorola is very easy, thanks to the supplied driver, although we did have a bit of trouble with a dodgy connection cable at first. But once up and running, the 3400 is a damn fine piece of kit – it's fast and the whole time we had it on test, it didn't drop the line once.

MACFORMAT Classic

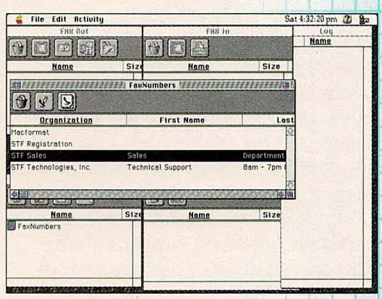
MOTOROLA 3400

Price: £175. **Out:** now.
Requires: any Mac or PowerMac, System 7, and 4Mb or more of free RAM.
Contact: Gasteiner on 0181 345 6000.

EASE OF USE 81%
Good software with good documentation, and it requires little setting up before use.

VALUE FOR MONEY 93%
For the 3400's speed, ease of use, and bundled software, it's a bargain.

MACFORMAT RATING 90%



Bundled with the 3400 is *STart Faxing*, a basic but capable fax program, and *Microphone LT*.

In terms of value for money, the Motorola 3400 takes some beating. If you're after a fast and affordable modem, without any hidden extras, this has to be top of your list.

WIN a Motorola 3400 modem and a year's free Net access – see page 138

SUPRAEXPRESS

This is the only modem on test that doesn't need a separate power supply – it's powered through the ADB (Apple Desktop Bus), the port on the back of your Mac into which you plug your keyboard. The case is a simple charcoal grey affair, with just four lights including the power indicator. At the back, a permanently attached cable connects the modem to both the ADB and the modem ports. A telephone-through port is also provided.

Bundled with the modem is *Microphone LT*, a capable communications program which has a driver for the SupraExpress. There is no manual for *Microphone*, but it does have a respectable on-line help option to guide your through each of its features. Out of the six modems on test, only this one didn't require the comms program to be set up before it could be used. Also supplied is *FAXcilitate* software for sending and receiving faxes, which gives your Mac an extra menu that enables you to send faxes from any application. *FAXcilitate*'s manual is a bit long-winded, but its troubleshooting and tips section is good stuff. The documentation for the modem itself is superb, written in non-techie plain English, and it tells you concisely how to connect the modem to your Mac and what to do if it doesn't work first time. It also has a good jargon busting section, something which is noticeably absent from most of the other modems' manuals.

Once fired up, the SupraExpress takes a while to dial your numbers, but once a connection is made, it's a good one. Faxes proved no problem, even sending to slow, ancient machines. The important advantage of the modem drawing its power from your Mac is that there's one less cable trailing behind your desk and one less 13 amp socket to find.

Okay, it's not stunning, but if you wanted inspirational design you'd buy a BMW, not a modem. Despite its plain exterior, the SupraExpress is a very capable modem at a reasonable price.

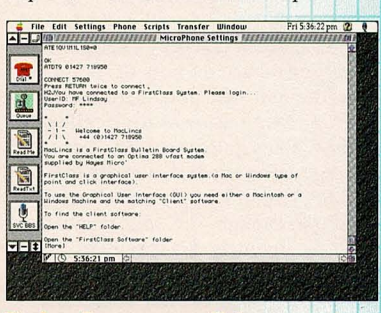
SUPRAEXPRESS

Price: £175. **Out:** now.
Requires: any Mac or PowerMac, System 7 or later and 1Mb or more of free RAM.
Contact: Computers Unlimited on 0181 358 5857.

EASE OF USE 89%
Plug it in, install the software, and off you go. The technical stuff is kept to a minimum.

VALUE FOR MONEY 88%
Given its price tag, the SupraExpress is an attractive option.

MACFORMAT RATING 89%



The SupraExpress comes with the ever popular *Microphone LT* (above), and *FAXcilitate* software.

Continued on next page

US ROBOTICS MAC & FAX SPORTSTER

Nope, it isn't a clock radio, and that isn't a tuning dial on the left hand side, it's a volume control. The Sportster is also the only modem to have DIP switches that you can set without the use of a screwdriver.

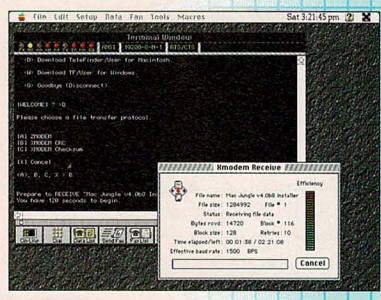
The US Robotics Mac & Fax looks more like a clock radio than a modem – and to add to the resemblance, it's the only one reviewed here that has a volume control. It doesn't look like much from the outside, but then, as always, it's the guts that count.

Along with the volume control on the side, the Mac & Fax possesses the near-obligatory array of LEDs to display the modem's status, and a set of DIP switches that enable you to set the modem's default settings, including carrier detect and auto-answer. You can also set these defaults through the software – though this involves initialising the modem each time you turn it on, with a bunch of AT commands that take time to send to the modem. The DIP switches enable you to configure the modem once, and your settings are then permanently stored – a good option for advanced users, but if you're a novice, you needn't worry about it.

With the Sportster comes *MacComCenter*, an all-in-one comms and fax program. The main advantage here is that *MacComCenter* only installs one Extension in your System Folder, instead of the dozens that seem to be installed with most fax or data communication programs.

The program itself is a bit of an all rounder and gives you complete control over the modem. One nice touch is an on-screen display that duplicates the lights you see on most modems. This enables you to check the modem's status without having to unearth it from the mound of faxes under which it's buried. The manual is generally good and explains all the different protocols and standards that you're likely to encounter, but the troubleshooting section is a bit thin.

In use the Sportster is fast and reliable. We didn't encounter any problems sending faxes, and it's quick off the mark to connect. The only quibble is its lack of a telephone-through jack to plug the phone into.



Bundled with the Sportster is *MacComCenter*, an all-in-one fax and comms program for your Mac.

MAC & FAX SPORTSTER

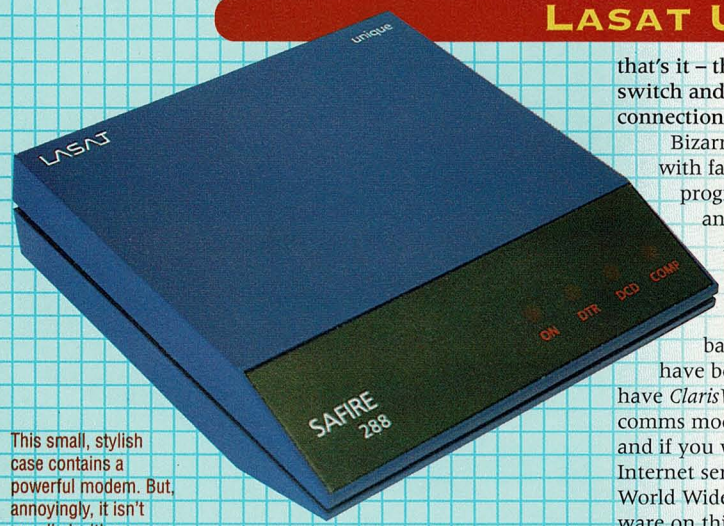
Price: £199 (street price £180). **Out:** now.
Requires: any Mac or PowerMac, System 6.0.5 or later and 2Mb of free RAM.
Contact: US Robotics on 0800 225252.

EASE OF USE 91%
The software is good, and the documentation makes it all sound very easy.

VALUE FOR MONEY 87%
Overall, a fast and reliable fax-modem at a price that won't break the bank.

MACFORMAT RATING 89%

LASAT UNIQUE SAFIRE



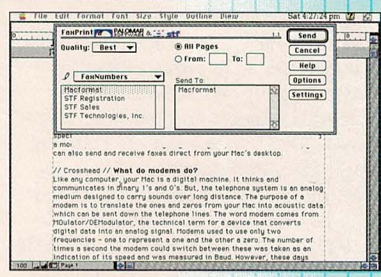
This small, stylish case contains a powerful modem. But, annoyingly, it isn't supplied with any comms software.

This has to be one of the neatest looking modems we've come across. It's tiny – it will fit in the palm of your hand – and yet it packs a lot of punch. The stylish light blue case sports just four status lights: Power, DTR (Data Terminal Ready – meaning that the modem is ready to communicate with your Mac), Carrier Detect (lit if it's made a successful connection) and Comp (compression, lit if the modem at the other end of the line supports data compression). At the back there's a power socket and connections for your telephone line and Mac. And that's it – there is no power on/off switch and no telephone-through connection.

Bizarrely, the Safire comes only with fax software – no comms program at all. This is an annoying omission for a modem that isn't all that cheap. To be fair, the fax software is *Fax STF*, which is quite good, but even a basic comms program would have been useful. True, if you have *ClarisWorks*, you could use the comms module supplied with that, and if you want more sophisticated Internet services, such as access to the World Wide Web, the Internet software on this issue's Cover CD will be all you need to get started.

The manual for *Fax STF* is comprehensive and well written, with all the features carefully explained alongside advice on how to set up your modem. The documentation for the Safire isn't quite as comprehensive and becomes quite technical, but setting up the modem is made easy and the jargon is explained clearly.

In use, though, the Safire redeems itself handsomely. It's speedy to initialise, makes the connection quickly and isn't as fussy about line noise as other modems such as the Hayes Optima. Lasat is so confident about this modem that it comes with a ten year guarantee – probably longer than many people's Macs will last.



The Lasat Safire comes with *Fax STF*, which comes with a comprehensive manual.

LASAT SAFIRE

Price: £293 (street price £223). **Out:** now.
Requires: any Mac or PowerMac, System 6.0.7 or later and 1Mb or more of free RAM.
Contact: Lasat on 0181 8991765.

EASE OF USE 87%
Straightforward to hook up to your Mac, with excellent fax software.

VALUE FOR MONEY 81%
A neat and fast modem, let down slightly by a lack of comms software.

MACFORMAT RATING 84%

HAYES OPTIMA

In the stakes for prettiest box, the Optima is not really in the running. In size, it's the largest modem on test, but Hayes hasn't changed its case style since dinosaurs last walked the Earth (and no, we don't mean Derek). An array of lights on the front indicate the modem's status and there's a power switch on the back. A telephone-through socket is also provided.

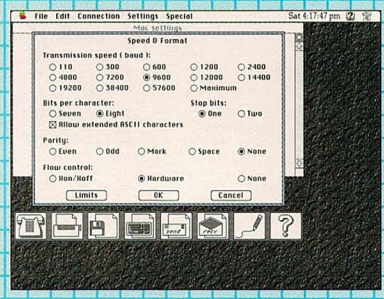
The modem comes with *SmartCom 1.0* and *SmartCom FAX*. *SmartCom* is a capable program, but a bit unfriendly to the uninitiated and a pig to set up.

The manual isn't much help here, as it doesn't explain any of the jargon it uses, and the extent of the help you get in setting up your particular modem is 'make sure there is a modem connected to your Macintosh.' The user's guide tells you all about the modem's technical details, but it's not Mac specific and the troubleshooting section is light to say the least.

SmartCom FAX is a fairly basic program compared with some of the other fax applications available, but it's functional and quite fast. Oddly enough, the manual for this is much better than *SmartCom's*. It takes you step-by-step through each of the features but, sadly, there's still no help with jargon.

Once it's all up and running, the Optima is a reliable and fast modem. Because it's made by Hayes, who produced the AT command set (the standard set of commands used to communicate instructions to a modem), the Optima will work quite happily with nearly any comms program in existence.

The Hayes Optima is a the bulkiest modem reviewed here, but once up and running it is reliable and fast.



The Hayes Optima comes with *SmartCom FAX*, a fairly basic but functional fax program.

HAYES OPTIMA

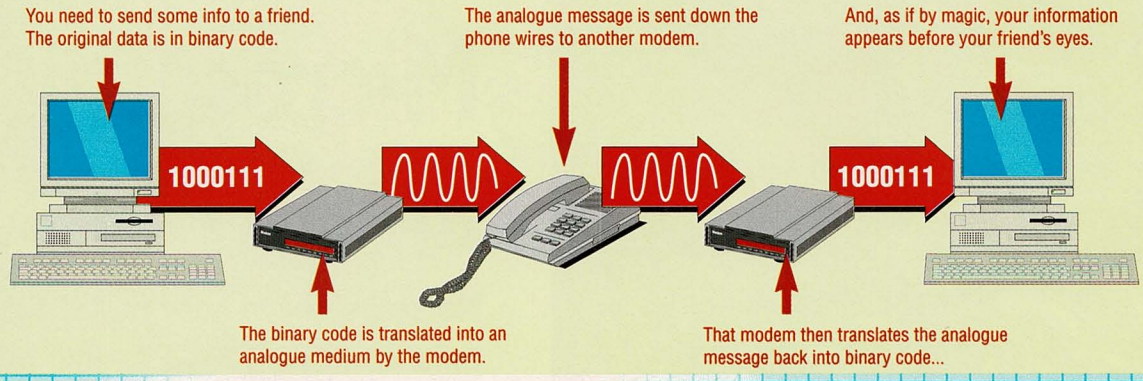
Price: £469 (street price £207). **Out:** now.
Requires: any Mac or PowerMac, System 6.0.2 or later and 1Mb or free RAM.
Contact: Hayes on 01252 775577.

EASE OF USE 79%
The manuals could be more coherent and less technical, but once you've got it set up, it's no trouble at all.

VALUE FOR MONEY 87%
A fast and reliable modem, but a little on the expensive side compared to what you get with some others.

MACFORMAT RATING 84%

SO HOW DOES YOUR MODEM WORK?


You need to send some info to a friend. The original data is in binary code.
1000111
The binary code is translated into an analogue medium by the modem.
The analogue message is sent down the phone wires to another modem.
That modem then translates the analogue message back into binary code...
And, as if by magic, your information appears before your friend's eyes.
1000111

GOING FASTER THAN 28.8K

The speed of modems has increased dramatically over the last few years, but it is becoming increasingly difficult to develop faster modems for the future because of the inherent problems that plague the technology. The basic problem is that modems use analogue telephone lines that can only handle so much information. If you have the money, however, there is a faster alternative – ISDN. Integrated Services Digital Network cards are becoming increasingly popular among business users – ISDN doesn't use analogue telephones lines, but much faster dedicated digital data transmission lines. Because the whole system is then digital, the transfer rates it achieves are much faster than over an ordinary phone line, sometimes as much as 68Kbps.

ISDN cards are available for any Mac that uses either NuBus or PCI slots and they cost in the region of £400-£600 for the most basic setup. You'll also need a dedicated ISDN line, which will cost you around £470 for connection and about £100 per quarter (£400 a year). This gives you two 68K ISDN channels to play with.

For even more speed you'll need to go up to ISDN-30, which gives you up to 30 68K channels, but this really is only for corporate users or National Lottery winners because of the huge costs involved.

The minimum single negotiable lease period for an ISDN line is 12 months, and the maximum five years. For more details about ISDN, contact BT on 0800 353699 or the BT ISDN Helpline on 0800 181514.

BABT APPROVAL

All the modems on review are approved for connection to the telephone system by BABT (the British Approvals Board for Telecommunications). However, you can buy modems that haven't gone through the approval process for slightly less than the cost of an approved one. We're not aware of any incompatibility issues regarding the use of an unapproved modem with your Mac, but it is illegal to connect an unapproved device to the telephone network. If you get caught using one of these, you could be disconnected.

An approved device will carry a label notifying you of this approval and bearing a green triangle.

Continued on next page

WHICH CLASSIFICATION?

All modems come with a classification standard that tells you what features it supports and how fast it will transfer data down a telephone line. These standards are set by the CCITT (Consultative Committee on International Telephone and Telegraph), a group of experts, manufacturers, and government bodies which determines the features that will be used in the standard. This prevents any confusion in the industry and any confusion between modems!

■ **V.22 bis**
This is the standard for 2,400bps data communication. 'Bis' is French for 'repetition', meaning that this is a revised standard.

■ **V.32**
The standard for 9,600bps data communication.

■ **V.32 bis**
The revised V.32 standard includes support for 14,400bps transmission.

■ **V.34**
The standard for 28,800bps data transmission.

■ **V. 42.**
This is an error correction classification. It includes levels two to four of the Microcom Networking Protocol (MNP), a system that checks for errors and, if necessary, resends any garbled data. If your modem has this classification, these features are built into its hardware.

■ **V. 42 bis**
This adds MNP class five to your modem, a protocol that enables you to compress data before you send it, so that it takes less time to be transferred. In order to use this data compression feature, the modem at the other end must also support MNP class five.

PRICE CHECK

The prices quoted in MACFORMAT are normally 'list prices' (or recommended retail prices), and that's what we base our value for money ratings on because dealers' prices can vary so widely. That's particularly true in a highly competitive area like modems. So we've added here a rough indication of the prices you might actually be asked to pay – as ever, shop around and check the adverts in MACFORMAT for the best deals.

JUST THE FAX, MA'AM – FAX-MODEMS COMPARED

Modem	Tel. through Socket	Warranty	Software	Price*	MF Rating	Contact
Global Village Teleport Platinum	Yes	5 yrs.	ZTerm GlobalFax GlobalOCR	£234	92%	Infobank 0181 991 0578
Motorola 3400	Yes	5 yrs.	Microphone LT STart Faxing	£175	91%	Computers Unlimited 0181 358 5857
SupraExpress	Yes	5 yrs.	Microphone LT FAXcilitate	£175	89%	Computers Unlimited 0181 358 5857
Mac & Fax Sportster	No	5 yrs.	MacComCenter	£180	89%	US Robotics 0800 225252
Lasat Safire	No	10 yrs.	Fax STF	£223	87%	Lasat 0181 899 1765
Hayes Optima	Yes	2 yrs.	SmartCom SmartCom Fax	£207	84%	Hayes 01252 775577

* Street price (for more information see the 'Price Check' margin note to the left).

"I think that Microsoft is afraid of us."

Netscape's head honcho Jim Clark talks exclusively to .net – find out why he has given Bill Gates the willies (in the nicest possible way).

.net slays the Internet myths that could stop you getting on-line.

Plus Netscape's Net visions, the best Navigator plug-ins revealed, how Irish cybercafés are helping the peace process, what happens when granny gets on-line and more hints and tips than any other Internet magazine.

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Apple Mac

PERFORMA

5200+ CD	8	800 15"ms	£895
5300+ CDm	8	1200 15"ms	£1219
5300+ CDTV	16	1200 15"ms	£1749
5320 CDm	8	1200 15"ms	£1379
5320 CDTVmpeg	16	1200 15"ms	£1949

m=modem

6200CD	8	800 base only	£709
6300CD	8	1200base only	£1025
6200CD	8	800 15"ms	£935
6200CD	8	800 14"ms	£895
6300CD	8	1200 15"ms	£1259
6300CD	8	1200 14"ms	£1219
6320CD	8	1200 15"ms	£1379
6320CD	8	1200 14"ms	£1339

POWER MACS

Base Units

Power Mac base units are supplied with Apple mouse, and System 7.5

7200/90 CD	8	500	£1037
7200/90 CD	16	1000	£1275
8200/100 CD	8	500	£1350
8200/120 CD	16	1200 l2 cache	£1685
7500/100 CD	8	500	£1630
7600/120 CD	16	1200 l2 cache	£2159
8500/120 CD	16	2000	£2775
8500/150 CD	16	2000 l2 cache	£3104
9500/132 CD	16	2000	£3195
9500/132 CD	16	2000 2Mb ATI	£3495
9500/150 CD	32	2000 l2 cache	£3509

POWER MACS BUNDLES

7200/75 8/500 + 1705 monitor	£1259

POWERBOOKS

190	4 500	£905
190	8 500	£1105
190cs	8 500	£1229
190cs	8 500	£1435

POWERPC POWERBOOKS

5300	8 500	£1384
5300cs	8 500	£1739
5300cs	16 750	£2189
5300c	8 500	£2309
5300c	16 750	£2815
5300ce	32 1100	£4325

All PowerPC PowerBooks Include EITHER a TDK Modem OR a STLYEWRITER 2200 EXCEPT the 5300 8/500

Memory

72 Pin Simms Call for requirements

1x32 4Mb 70ns	£30
2x32 8Mb 70ns	£59
4x32 16Mb 70ns	£122
8x32 32Mb 70ns	£244

168 Pin Dimms for PCI PowerMacs

8Mb 70ns	£59
16Mb 70ns	£119
32Mb 70ns	£239
64Mb 70ns	£499

Call for Notebook Memory

Apple Authorised Reseller

Apple Mac

APPLE MONITORS

Multiple Scan 14" display	£217
Multiple Scan 15" display	£269
Apple Multiple Scan 1705	£465
Apple Vision 1710 Trinitron	£579
Apple Vision 1710 AV	£650
MultipleScan II 20" display	£1199

For Other Models Of Monitor Please Call

APPLE KEYBOARDS

Apple Design Keyboard	£74
Apple Extended Keyboard	£128
Apple Adjustable Keyboard	£149
Apple Mouse 2	£33

APPLE CD-ROM

Apple CD 600e	£214
Apple CD 600i	£174

APPLE Xtras

Apple Design powered speakers	£48
Apple MIDI interface	£41
PlainTalk Microphone	£15

Inkjet Printers

APPLE STYLEWRITER

Stylewriter 1200	£79
Stylewriter 1500	£215
Colour Stylewriter 2200	£255
Colour Stylewriter 2500	£275

HEWLETT PACKARD

DeskJet 340 + Mac Kit	£187
DeskWriter 600	£142
DeskWriter 660C	£238
DeskJet 850C	£313
DeskJet 1600CM Postscript	£1218

EPSON

Stylus Colour 2 720dpi	£215
Stylus Colour Pro A4	£323
Stylus Colour Pro XL A3	£799
Stylus Pro Postscript Software	£199

Laser Printers

APPLE LASERWRITER

LaserWriter 300 512K	£408
LaserWriter 4/600 PS	£557
LaserWriter Select 360 7Mb	£939
LaserWriter 16/600 PS	£1675
Colour LaserWriter 12/600 PS	£4509

HEWLETT PACKARD

LaserJet 5MP	£729
LaserJet 5M	£1189
LaserJet 4MV Pscript A3	£2039

Syquests

EZ 135 external Drive	£149
44Mb 5.25 cart	£24
88Mb 5.25 cart	£29
270Mb 3.5 cart	£36
EZ 135Mb cart	£13

For Other Peripherals Please Call

Apple Authorised Reseller

Scanners

UMAX

Vista S6E LE	£299
Vista S6E Pro	£725
Vista S12 LE	£575
Vista S12 Plus	£675
Vista S12 Pro	£999
PowerLook II Pro	£1999
Mirage Pro (A3)	£5999

LE = Photoshop LE
Plus = Photoshop Full
Pro = Photoshop Full + Transparency

Umax Transparency	£375
Umax Document (50 sheet)	£399

AGFA

StudioScan II SI Abobe PhotoShopLE	£488
StudioScan II SI Abobe PhotoShop 3.0	£575
Arcus II Full Adobe PhotoShop	£1595

EPSON Colour Scanners

GT Scanner Packages for Mac

Includes all, cables & software required

GTX inlcudes:

- Adobe Photoshop LE
- Xerox TextBridge OCR

GTX5000 Apple Mac	£298
GTX8500 Apple Mac	£469
GTX9000 Apple Mac	£565

GTI package includes:

- Adobe Photoshop full version

GTI8500 Apple Mac	£642
GTI9000 Apple Mac	£738

HEWLETT PACKARD

ScanJet 4P Colour Mac	£319
ScanJet 4C Colour Mac	£595

APPLE

Apple ColourOne 600/27	£375
Apple Document Feeder	£209

Modems

US ROBOTICS

Mac & Fax 28.8	£134

MOTOROLA

Motorola for Mac 28.8	£118

GLOBAL VILLAGE

Teleport Platinum	£148
Teleport Platinum BABT	£218
PowerPort Platinum	£295
PowerPort Gold PCMCIA	£130
PowerPort Platinum PCMCIA	£325

APPLE

Express Modem	£285
Performa Comms Slot Modem	£109
Performa Comms Kit 28.8	£162

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Epson EPL-5500

Contemplating a PostScript laser printer? Could be that Epson's new baby is just the machine you've been looking for. We put it under the microscope...

If you want to produce professional looking graphics of any kind on your Mac, then a decent black and white laser printer has to be top of your list of Things To Get. Even a humble church newsletter will benefit from being printed on a laser printer, because laser printouts look good – or if the printer happens to be Epson's new EPL-5500, very good indeed.

The EPL-5500 actually comes in two flavours, non-PostScript and PostScript compatible, the latter of which we're reviewing here. A small beast, it's not much bigger than your average inkjet, but inside the innocent looking case lurks a 600dpi laser printing engine, PostScript compatibility and 5Mb of RAM. The RAM can be expanded up to 32Mb for printing really complex documents. There's a 150 sheet feeder tray that accepts paper sizes up to A4, and the printer also has 22 of the more common fonts built in. The case is neat and tidy, and the paper trays fold away, helping keep your desk clear.

The key phrase here is *PostScript compatible;* more accurately, the printer uses EpsonScript, a PostScript clone. The differences are minor – PostScript graphics and text print out perfectly on the 5500 – but using a PostScript clone language means the printer is cheaper to produce. A printer driver is supplied, but oddly enough there's no cable to attach it to your Mac. In fact, Epson doesn't provide a Mac cable with any of its printers, so make sure you ask for one from your dealer. It's annoying that you should have have to go to this extra trouble even before you can plug your printer in.

Inside the innocent looking case lurks a 600dpi laser printing engine, PostScript compatibility and 5Mb of RAM.

Anyway, how does it perform? Not bad at all, actually. Text prints out sharply and cleanly, while greyscale graphics are reproduced faithfully. The printer even does a good job representing subtle colour gradients. It's pretty fast too; a 1Mb *QuarkXPress* document with text, PICTs, and an EPS file printed out in just under a minute, while a similar *PageMaker* document took just over a minute. On straight text, the EPL-5500 whips through six pages per minute, a respectable figure for any printer. On the downside, it does tend to crumple very thin paper as it pulls it in. Epson recommends paper between 60 and 90gsm, but it definitely works better with something a bit heavier than ordinary copier paper (80gsm).

As for documentation, the EPL-5500 comes with two hefty manuals – one for the Mac, and one for the dreaded PC. The Mac manual is heavy on jargon and light on explanations. If Epson is going to produce printers for the Mac, it could take a leaf out of Apple's book and write understandable manuals. On the plus side though, the manual includes a separate reference guide. This is very good and includes tips and troubleshooting assistance.

For a larger, busier office, the Epson EPL-5500 doesn't really hold enough paper and may prove rather too light. But it is ideal for home or small office use. It's compact and light enough to sit on any desk, it's fast and it's capable of producing fine quality mono printouts and sharp text. If you've been debating whether to move up to PostScript, you shouldn't need more convincing than this.

LINDSAY BRUCE

POSTSCRIPT?

PostScript is a language that uses mathematic vectors to describe images sent to a printer. The advantage of this is that the device will always print the image at its highest resolution. To be able to print PostScript fonts and graphics, you have to have a printer equipped with a PostScript interpreter and enough RAM in it to process the file you want to print.

It's compact, quick and does a lovely job of reproducing those fine greyscales. If you're after a good 600dpi PostScript laser, the EPL-5500 has got to be worth a look.

EPSON EPL-5500

Price: PostScript with 5Mb of RAM, £1,080; non-PostScript with 2Mb of RAM, £633; non-PostScript with 1Mb of RAM, £563.
Requires: any Mac, 2Mb of RAM, System 7 or later.
Contact: Epson on 0800 289622.

FEATURES 84%
Small, light and fast with exceptional print quality. The lack of a cable to connect it to your Mac is annoying.

EASE OF USE 89%
Plug it in, install the driver and off you go. The toner and developer cartridges are easy to change.

DOCUMENTATION 70%
The manual's rather jargon heavy, but the reference guide is good.

VALUE FOR MONEY 92%
At slightly over a grand (RRP) you'll be hard pushed to find another printer with comparable specs.

MACFORMAT RATING 89%

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5300 8/ 1200 CD M	£1300	£227.50	£1527.50
5300 16/ 1200 TV MPEG	£1750	£306.25	£2056.25
5300 16/ 1200 TV M MPEG	£1879	£328.82	£2207.82
5200 plus 8/800	£1100	£192.50	£1292.50
5200 plus 8/800 CD M	£1100	£192.50	£1292.50
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POWER MAC RANGE

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8500/150/16/2000CD	£3250	£568.75	£3818.75
9500/150/32/2000CD	£3700	£647.50	£4347.50
7200 /75/8/500	£850	£148.75	£998.75
7200 /90/8/500 CD	£1075	£192.50	£1292.50
7200/90/16/1GIG CD	£1300	£227.50	£1527.50
7500/100/8/500 CD	£1500	£288.75	£1938.75
7500/100/16/1GIG CD	£1899	£332.32	£2231.32
8500/120/16/2000 CD	£3000	£525.00	£3525.00
9500/132/16/2000 CD	£3400	£595.00	£3995.00
9500/120/16/1000 CD	£3200	£560.00	£3760.00

POWER BOOK RANGE

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190CS 4/500	£1280	£224.00	£1504.00
5300 8/ 500	£1400	£245.00	£1645.00
5300CS 8/500	£1750	£306.25	£2056.25
5300C 16/750	£2200	£385.00	£2585.00

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7200/90 32MB 1GIG CD WITH 17" MONITOR & KB	£1949	£341.07	£2290.07
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8500/120 32MB 2000 CD WITH 17" MONITORS & KB	£3600	£630..00	£4230.00
9500/120 16 /1000 CD WITH 17" MONITORS & KB (2MB ATI)	£3600	£630.00	£4230.00
9500/132 16/2000 CD WITH 17" MONITORS & KB	£3750	£656.25	£4406.25
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GT 5000	£350	£61.25	411.25
GT 8500	£700	£122.50	822.50
GT 9000	£600		
APPLE			
COLOUR ONE	£539	£94.32	633.32
MONO	£150	£26.25	176.25
UMAX			
POWERLOOK PRO	£1999	349.82	2348.8
MIRAGE D-16L	£5400	945.00	6345.0
S6	£389	68.07	457.00

HARD DRIVES

	EX VAT	VAT	INCVAT
INT SCSI HARD DRIVES			
540MB	£85	£14.88	£99.88
850MB	£139	£24.33	£163.33
1GIG	£159	£27.88	£186.83
2GIG	£349	£61.07	£410.07
4GIG	£POA	£POA	£POA
8GIG	£POA	£POA	£POA
EXT HARD DRIVES			
540MB	£130	£22.75	£152.75
850MB	£180	£31.50	£211.50
1GIG	£219	£38.33	£257.33
2GIG	£450	£78.75	£528.75
POWER BOOK HARD DRIVES			
200MB	£99	£17.33	£116.33
540MB	£189	£33.08	£222.08
1.0GIG ONLY NEW POWER BOOK	£499	£87.33	£586.33

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SYQUEST INTERNAL & EXTERNAL			
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105MB INT.	£129	£22.58	£151.58
105MB EXT.	£189	£33.08	£222.08
270MB INT.	£229	£40.08	£269.08
270MB EXT.	£299	£52.33	£351.33
EZ 135 EXT.	£139	£24.32	£163.32
DAT			
2GIG	£750	£131.25	£881.25
4/16GIG	£929	£162.58	£1091.58
IOMEGA			
ZIPP 100MB	£139	£24.32	£163.32
JAZZ 1GIG INT.	£379	£66.33	£445.33
JAZZ 1GIG EXT.	£409	£71.58	£480.58
OPTICAL			
230MB INT.	£329	£57.58	£386.58
230MB EXT.	£350	£61.25	£411.25
1.3GB EXT.	£729	£127.58	£856.58

CD-ROMS & CD WRITERS

		EX VAT	VAT	INCVAT
CD-ROMS				
NEC 2 SPEED		£99	£17.33	£116.33
D2 4 SPEED		£169	£29.58	£198.58
NEC 6 SPEED		£299	£52.33	£351.33
APPLE 600E		£239	£41.83	£280.83
CD-WRITERS				
PINNACLE		£629	£110.07	£739.07
RICOH 2SPEED		£789	£138.08	£927.08
YAMAHA 4 SPEED		£POA	£POA	£POA
R/W CD'S	from	£5.00	£0.88	£5.88

MEMORY SIMMS/DIMMS

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DIMMS			
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Extreme dreams

Want to add that extra dimension to your Mac art? Brian Larkman looks deep into two new 3D illustration packages, *Extreme 3D 1.0* and *Ray Dream Studio 4.0*.

The most unusual new function in *Extreme 3D* is the way it enables you to show light beams by adding controlled amounts of digital 'dust' to them. This is how the effect of sun shining through water is produced in this example.

Don't miss the *Extreme 3D* demo and *Ray Dream Gallery* on the Cover CD!

'BONES'
An easy way to animate complex objects such as animals is to use stick-figures or 'bones' to represent them. In advanced animation systems, these bones can be spline curves so that objects can bend naturally, even stretching and creasing on opposite sides.

BOOLEAN
If two objects overlap, one can be used to define a section to be cut away from the other, rather like a shaped blade. A 'boolean' operation defines how this cutting action affects the objects.

Over the years, Macromedia has gathered to itself a variety of applications and, by careful upgrading and clever integration of style, ended up with a co-ordinated software portfolio. Only its 3D programs *Swivel, Three-D* and *MacroModel* – brilliant in their day, but now rather outdated – still required upgrading. This time Macromedia went back to the drawing board and produced a completely new program – *Extreme 3D*.

By contrast, *Ray Dream Designer* has already built up a large following of designers and illustrators to become one of the most popular 3D illustration packages available for the Mac. Its curious 'working box' interface is an example of an odd idea that really works – especially if you're new to 3D. Its combination of useable tools like this, superb rendering and a low price has made it almost irresistible. It only needed the addition of animation to make it the perfect entry-level package, and now it has even that. So how do the two compare?

Resources

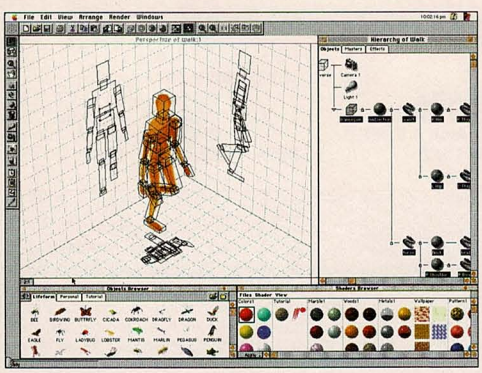
Ray Dream Studio arrives on a CD that includes *Ray Dream Designer 4, Ray Dream Animator* and *Dream Models* – 500 editable clip-art models and shaders. There's also an Extensions Portfolio to help developers write plug-ins. This should ensure that the package improves quite quickly, with lots of enthusiasts writing more esoteric tools. The manual and tutorials are also excellent, so getting to grips with the program should be no problem at all.

Extreme 3D also comes on a CD, with a large collection of material textures and lots of fonts, but very few models compared to *Ray Dream Studio's* huge resource. Those few are of real high quality, though. There is an excellent thick manual and reasonable tutorials, plus an online guide and some QuickTime demos on the CD, so there's a lot of help – but you will need it. *Extreme 3D* boasts lots of powerful, versatile tools, but they will take time to master. This is undoubtedly a program for serious users.

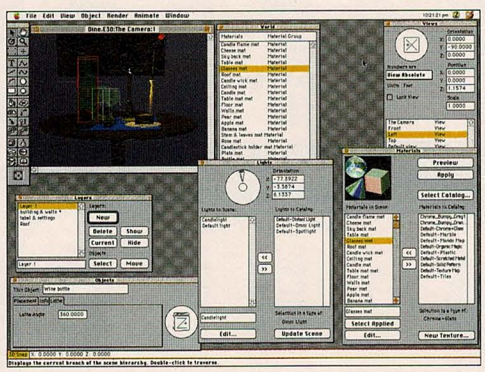
Interface

The *Extreme 3D* interface is clear and straightforward, offering a range of options from a large single perspective view with ground plane like *Alias Sketch* to something like *Infini-D's* quad-view. Again, there are no concessions to the novice – you set up a range of windows just as you like them. It's confusing to begin with, but it all fits in with Macromedia's broad interface concept for all its new programs. Nevertheless, the huge space-wasting palettes make a large monitor – at least a 17-inch – essential. Once you're using the software, navigation around the 3D world is fast and logical and consistent for both objects and views, using just pointer, zoom, and hand icons with key modifiers.

The new *Ray Dream Designer* interface is also an improvement – more conventional than version 3 maybe, but easier to learn as a result. The 'working box' display system remains much the same, providing the ease of control you got in *Infini-D's* quad-view, plus the large single perspective view clarity of *Alias Sketch*. A set of custom screen layouts is provided for various tasks – for instance modelling and animation – and monitor sizes, making



Ray Dream Designer's 'working box' perspective interface provides you with three plane views at once, each showing the precise position of the object in space by displaying a 'shadow' you can move, size or rotate in that plane. Note also the new object directory, the toolbars, and the basic object hierarchy palette.

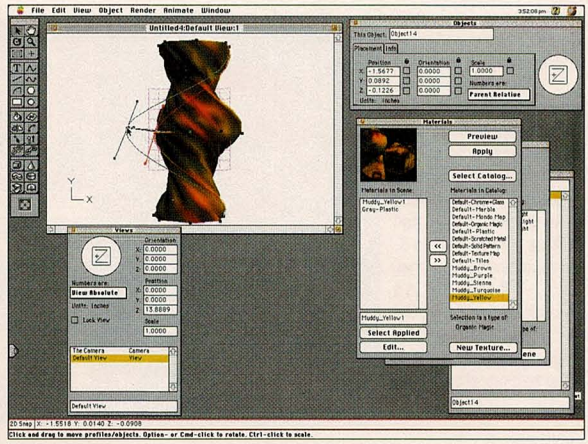


The *Extreme 3D* interface is freely customisable so you can set up the views and browsers to suit every occasion (though you can't save the set-ups except as 'default' files, which need re-naming each time you change the set-up). The palettes are mostly rather large, making a large monitor almost essential.

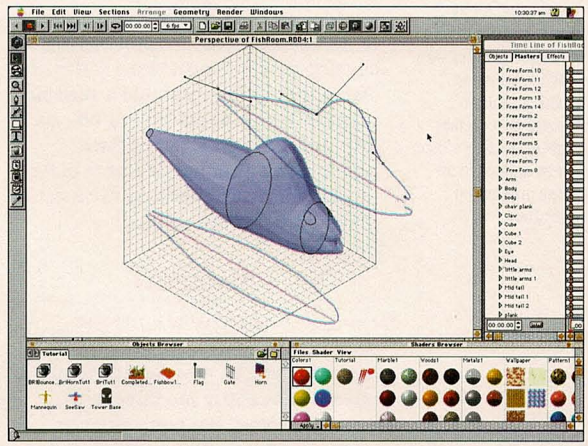
ADDING SURFACE TEXTURES

There are two methods of adding surface textures to 3D objects. Surface mapping takes a flat, bitmapped image and wraps it onto the surface of an object to create the illusion of a solid material. Procedural mapping uses a series of descriptions of three dimensional marks, including colours, gradients, spots, lines, noise and swirls, and projects them into a 3D space, filling it completely, but invisibly except for the areas where the object is. The object defines which parts of the description should become a visible reality, so if you cut into the object, a true internal structure becomes visible.

This image shows the quality of *Ray Dream Designer's* Scene Wizard, which makes it easy to place the lights, backdrop, cameras and props into your work, all ready to render. In this scene that includes everything but the fish and the water.



Modelling in *Extreme 3D* is a joy. Everything is done in the main workspace using simple 2D spline tools to draw paths and profiles, which you can then sweep into smooth 3D forms using Extrusion, Lathe, Sweep, Cross-Section and Skin tools. Once you've created any object, double clicking on it makes its construction lines available for further curve or point editing.



Modelling in *Ray Dream 4* is much the same as in previous versions, but the interface has been tidied up and simplified. All objects are defined by bezier-type curves, which will be familiar if you've used *FreeHand* or *Illustrator*. This feature enables you to design fluid, organic objects easily.

the layout easier to learn and less confusing than *Extreme 3D's*. The new adjustable toolbars may be handy, and the use of card index 'tabs' to help you negotiate the various palettes – a feature of both programs – is a very neat idea.

Navigation around *Designer's* 3D world has also been improved, with a camera 'dolly' tool in addition to the accurate, but rather clumsy, old Camera Properties palette controls. The dolly tool is also a little faster than the older methods, though even on a PowerMac the overall speed of navigation can only be described as sluggish.

Modelling

The modelling capabilities in *Extreme 3D* are nothing short of brilliant. You do everything in the main workspace using simple 2D Spline tools to draw paths and profiles. You can then sweep these into smooth, organic, 3D forms using a sophisticated range of Extrusion, Lathe, Sweep, Cross-Section and Skin or Lofting tools. Fine tuning and editing are also a delight: doubling-click on any object makes its construction lines available for curve or point editing. Boolean-like 'trim' tools tools enable one object or profile to cut away irregular sections and holes or blend with another object. Deformation tools include Twist, Bend, Taper, Stretch and Skew functions.

Amazingly, though, *Extreme 3D* doesn't include an object 'library' palette – except for the objects used in any one scene – and there is no means for building one. Pre-built objects have to be cut and pasted from other scenes and any materials used must be laboriously copied across separately – a real pain.

For modelling, *Ray Dream Designer* also uses only vector tools, but the whole process takes place in a separate modelling window. All of the usual basic 3D modelling methods are available – Extrusion, Lathe, and Lofting – but with a range of sophisticated variations. These can make the modelling techniques a little more difficult to learn, but they are quite powerful, hindered only by your having to work away from the main scene, making comparisons with other objects difficult. You can construct most object types, but the lack of point editing and Boolean tools does make some constructions time-consuming. The Deformer tools can transform regular objects into asymmetric ones, but *Ray*

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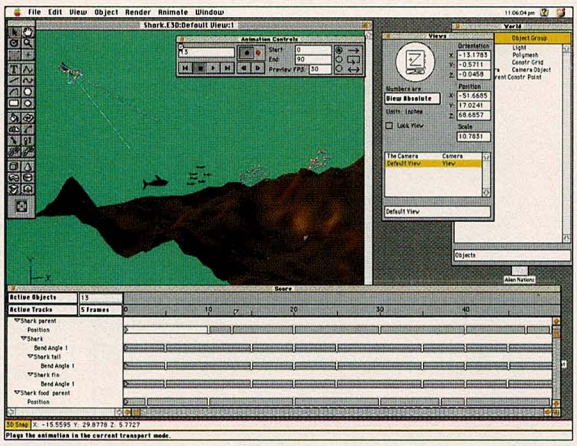
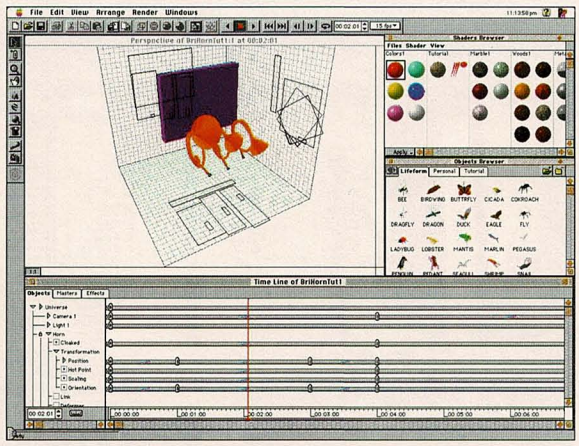


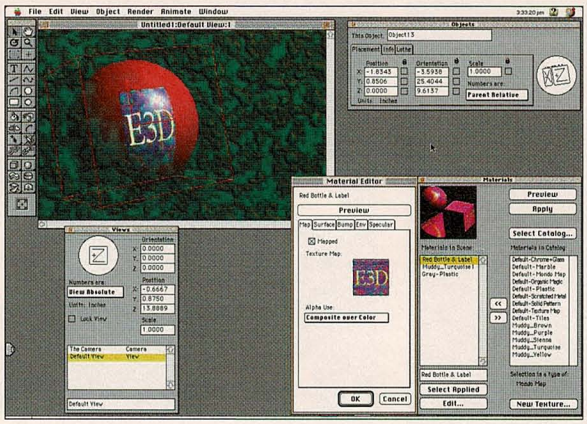
Extreme 3D's Animation Score is a fairly standard object hierarchy with timelines and event markers or key frames. All the animatable properties and effects are shown as levels of the hierarchy and can be given start and end points on the timeline, and controls at the top of the score. Notice also the VCR type toolbar buttons.



A simple change to the *Ray Dream* window options and the object hierarchy turns into a full-fledged timeline animation palette showing event markers. All animatable properties and effects are shown as levels of the hierarchy, so you can easily give them start and end points on the timeline, making editing clear and easy. Here too there are VCR-type toolbar buttons.

Quad-view & Tri-view

Traditional technical drawing defines an object with front, end and plan views – the tri-view. Programs like Specular *Infini-D* add a fourth perspective view to these three, creating a 'quad-view' workspace.



You can't use *Extreme 3D* to place two materials or textures on the same object, except in the limited case of specially prepared bitmaps with alpha channels, as shown here. The original image to paste must be placed in the centre of a large image canvas with an 8-bit transparency channel. When pasted in a MondoMap material, the surface colour and opacity show through in the transparent areas of the channel.

Dream just does not compare with *Extreme 3D* for ease of direct, hands-on modelling and editing. However, *Ray Dream's* unique Modelling Wizard system, designed to help you in the construction of objects, has been retained and improved from version 3. In addition, a Scene Wizard has been developed which provides a series of dialogues to help you build a suitable scene in which to place your objects. This includes lights, props, backgrounds and automatic camera placements, dramatically easing the most laborious part of modelling.

G-BUFFER
An extra channel of 8-bit data that maps certain characteristics of the scene – distance from the camera, speed of motion, orientation – so that post-production effects can be applied in an image processing application.

Materials

Extreme 3D can handle both 'procedural' materials and bitmapped texture maps. Its nine default material types can be easily modified in a variety of ways, but you can only apply one material to each object at a time, making complex integrated textures difficult and time-consuming to achieve. The material editing system is sufficiently versatile to enable you to get around this but, once again, lots of practice and experimentation is required. About 30 preset materials are installed in *Extreme 3D*, and a huge range of texture maps is also available on the separate *Wraptures* CD. There is a preview of your currently selected material displayed in the Material Browser, but no material palette to show you the whole set. Placing textures on objects is made very easy, though, with an outline visible on the object that can be transformed in real time.

The modelling capabilities in Extreme 3D are nothing short of brilliant.

Ray Dream Designer comes with a huge range of materials or 'Shaders' on the CD, and the Shaders Browser displays them as sphere previews, making selection much easier than in *Extreme 3D*. There's also a powerful Shader Editor, which can modify Shaders as well as overlay or blend multiple textures together to create completely new surfaces almost infinitely. Surface texture mapping has always been one of the strongest areas of *Ray Dream Designer*, and there's now even a Glow map that makes objects glow without actually casting light.

Rendering

Macromedia's abandonment of Pixar's *RenderMan* render engine seems to have done *Extreme 3D's* rendering capabilities little harm. The rendering is excellent, especially considering that it uses Phong rendering instead of the higher-quality but much slower ray-tracing method. Creating true reflection and refraction are not possible using Phong rendering but, to make up for this loss, soft shadows and the amazing visible light beams are provided – a fair exchange. There are no extra buffers to use for post production effects (as thre are in *Ray Dream Designer)*, but the Layers system enables you to render objects at different depths separately, so you could add depth-of-field, motion blur and lighting effects later.

The quality of *Ray Dream's* rendering is a major reason for its popularity. Like *Extreme 3D*, it offers high quality Phong rendering for use when you need speed but not reflection or refraction; this also has the added benefit of soft shadows. In addition, though, *Ray Dream* has excellent ray-traced rendering, giving it the edge for the very best illustration work. It also boasts a 'G-Buffer' – multiple channels of information to create depth-of-field, clouds and even extra light sources in post-production image processing.

Animation

Extreme 3D is primarily geared up for animation, with fast rendering and a

LATHE
Rotating a curve around an axis defines a symmetrical shape like a wine glass. The effect is similar to that of an object 'turned' on a lathe.

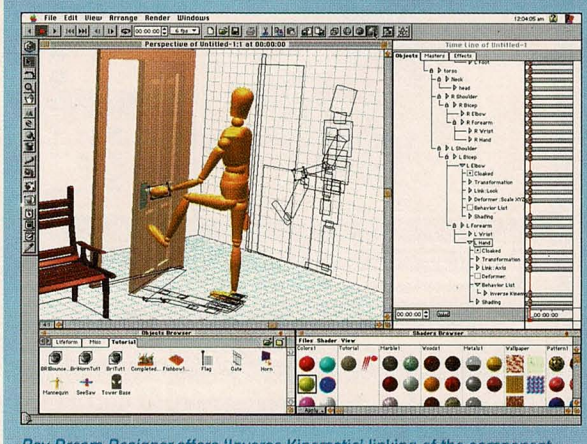
EXTRUSION
Material squeezed through a shaped hole is 'extruded' (like toothpaste). 3D objects with a complex cross-section are created by extending or 'extruding' the curve into the third dimension.

INVERSE KINEMATICS

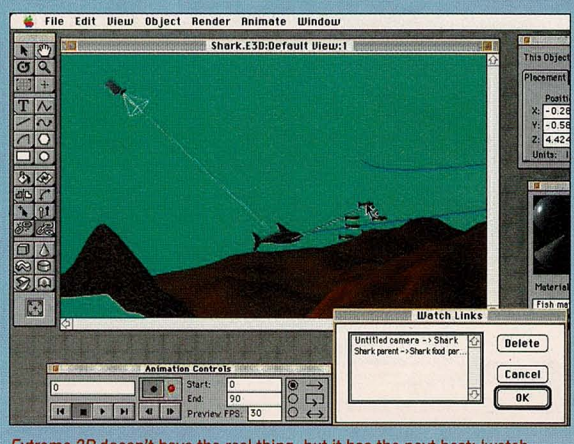
Complex 3D models are made up of many objects, so a human body would comprise a separate head, torso, arms and hands (and more besides). This means it becomes very complex to co-ordinate the movement of all these linked objects. Conventional object linking hierarchies only allow mechanical movements – 'parent' to 'child'. Pivoting the shoulder, for example, moves the whole arm – down to the finger tips – stiffly, as a unit. So, if you want to animate a hand turning a door handle, you have to move each part separately – a laborious process.

'Inverse Kinematic' linking enables you to select the hand and drag it direct to the handle. The other parts of the arm should then pivot and bend (within any preset restraints) and follow accordingly. Thus moving the child moves the parents!

All of the links in the *Ray Dream Studio* illustration (left) were restricted to give as much freedom of movement as the equivalent human joint, but if you look closely at the hierarchy you will see that only the hand has an Inverse Kinematic Behaviour effect



Ray Dream Designer offers 'Inverse Kinematic' linking of the component objects in a model, meaning that movements can be made more realistic.



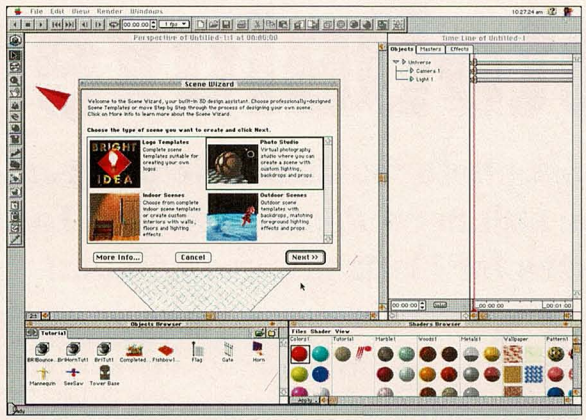
Extreme 3D doesn't have the real thing, but it has the next best: 'watch-linking'. This enables linked objects to interact almost as realistically.

huge range of properties that can be animated. Each editable parameter – model geometry, material qualities, lights and camera position – can be animated, using the timeline 'score'. This is a fairly standard object hierarchy that uses timelines and event markers or key frames. All the properties and effects you can animate are shown as levels of the hierarchy, each with its own timeline, and you can give key frames values for the selected property, using dynamic controls at the top of the score. Generally, the animation capabilities seem to cover all the basic professional requirements, with a high degree of control. There is still plenty of room for improvement, though, as several key features are missing, including Particle Systems, Collision Detection, Applied Forces (gravity, wind, etc), 'Bones', and Inverse Kinematics to name but a few.

Using Ray Dream can actually be fun. Just speed it up and you'll love it!

Ray Dream's new animation module is integrated into the Hierarchy/Scene window as a 'timeline' display option similar to that of *Extreme 3D*. Opening the nested structure of the hierarchy reveals the properties of each object, including Shaders, Transformations, Cloaking, Behaviours, Deformers, and Links – each also with its own timeline – and further animated parameters. The Deformers available include Bend and Twist (excellent) and Shatter (feeble), and the Behaviours include Point at, Bounce, Spin and Inverse Kinematics – perhaps the most dramatic animation tool provided.

Generally, the animation facilities offered by *Ray Dream* are reasonable, but they're let down by the overall sluggishness of previews and a general lack of control – for instance, there are no visible, editable motion paths. This is only version 1, however, and third party plug-ins should remedy many such shortcomings in the near future. With luck, the same may prove true for the particle systems, collision detection, and so forth, that *Extreme 3D* lacks at present.



Scene Wizards have been developed in *Ray Dream* to help you build a suitable scene in which to place your objects. A series of dialogues leads you through the process so that lights, props, backgrounds and camera placements are set up automatically. The scenes are completely editable and make an excellent starting point for most of the environments you are likely to require.

Ease of use

If you have used any program that supports Apple's new QuickDraw3D, you've been spoilt for speed. Only QuickDraw 3D can give you the ability to move rendered, textured objects and even lights in real time, watching the changes in view, shading, and lighting vary just as they would in an object held in your hand. After that, almost any 3D program will seem slow, even *Extreme 3D*, which is quick by any other standard.

Ray Dream Designer is noticeably slower still – not so much at rendering, but in updating the screen, moving objects and changing textures. But it's also intuitive, powerful, easy to use and learn, and provides excellent modelling tools. The separate modelling window is fiddly, but the brilliant 'Scene Wizards' more than make up for that. What's more, using *Ray Dream* can actually be fun. Just speed it up and you'll love it!

In contrast, *Extreme 3D* is fast, serious and professional. You'll find the brilliantly interactive modelling and the 'dusty' lights a joy to use, easily beating *Ray Dream* in the innovation stakes. The animation is also very powerful, but a lot more automated effects would be useful for ayone who's not already a professional animator. The whole feeling of *Extreme 3D* is of an extremely serious tool, professional, but perhaps needing an injection of humour!

Its lack of ray-tracing is a serious shortcoming for a professional-level program though, and *Ray Dream's* greater range of resources supplied, friendlier interface and more versatile materials handling give it the edge, especially since it's half the price. **MF**

applied. Even so, moving the hand makes the arm and shoulders lean toward the door, just as they would in real life.

Although it has no Inverse Kinematics, *Extreme 3D* has the next best thing – watch-linking. Objects that you link in a normal hierarchy move together according to the type of link. Thus if the parent object moves, the linked child moves with it. But the child object may also be able to move independently.

In this example, the small fish all wave their fins independently, but each is linked to a separate, invisible construction object that controls the movement of the school (rather than the individuals), which is animated to follow the blue curve or 'path', aligned to its curves.

The shark also follows the blue path, a short distance behind the school of fish, but is also watch-linked to them, so that it changes its orientation to look as if it's watching them. The camera is watch-linked to the shark, so a chain is built with the parent object orienting to the motion of the child objects – much as in true Inverse Kinematics.

Extreme 3D v1.0

Price: £645.75. **Out:** now.
Requires: Quadra or better with FPU (PowerMac recommended), 16Mb of RAM (24Mb recommended), 20Mb of hard disk space, System 7.1 or later, 256-colour monitor (17-inch or larger recommended), CD-ROM drive.
Contact: Computers Unlimited on 0181 200 8282.

Features 90%
Brilliant bezier-based modelling, good animation, visible light beams, impressively fast rendering.

Ease of use 80%
Forbiddingly spartan interface and steep learning curve, but very fast to use once you've got the hang of it.

Documentation 85%
Excellent, comprehensive reference. Reasonable tutorials plus online guide and CD QuickTime demos.

Value for money 85%
One for the pro's.

MACformat rating 86%

Ray Dream Studio v4.0

Price: £293.75. **Out:** now.
Requires: Quadra or better with FPU (PowerMac recommended), 12Mb of RAM, 20Mb of hard disk space, System 7 or later, 256-colour monitor, CD-ROM drive.
Contact: Principal Distribution on 01706 832000.

Features 85%
Improved interface, reasonable animation complete with Inverse Kinematics, ray-tracing, superb materials handling and great Scene Wizards, plus loads of bundled clip models and textures.

Ease of use 90%
Very intuitive once you master the unique interface with its drag and drop everything. Brilliant modelling and Scene Wizards, but *so* slow!

Documentation 85%
Excellent – clear tutorials and comprehensive reference.

Value for money 95%
A real bargain.

MACformat rating 89%

Skin
If a series of curves are placed together like the 'ribs' of a boat or the girders of a large building, a 'skin' can be stretched over them, giving the appearance of a solid object. You might also know this process as Lofting.

Spline Tool
Complex, flexible curves or 'splines' can be created with a Spline tool and controlled with a few handles by 'twisting' them like a piece of stiff wire.

Particle Systems
An animation system where you can give particles random motion characteristics, but constrain them to an overall 'flock' motion – like a flock of birds. Useful for rendering effects like smoke and clouds.

PhotoDeluxe

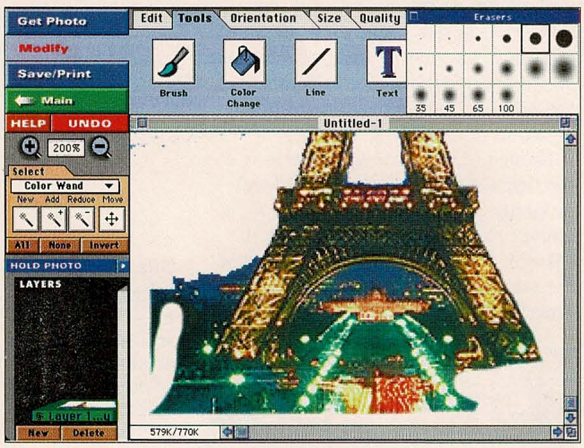
When low-cost photo manipulation programs are this good, do you still need *Photoshop?* Rod Lawton finds some new uses for his family snapshots...

Do you keep your family snapshots on PhotoCD? Do you ever want to send a relative a home-made Christmas card? Do you have school-kids or students in the family who might need to create an extra special-looking report?

Adobe's *PhotoDeluxe* is an image manipulation package for families who are up to speed with the latest imaging technology and have the hardware to make the most of it.

PhotoDeluxe is not just another Mac paint package. Sure, you can draw lines, type text and paint pictures, but its principal function is to enable you to convert your photographs from a collection of poorly-exposed, badly-composed and generally indifferent images into... well, whatever you like! It gives you the power to produce anything from 'colourised' black-and-white photos to labels for your home-made strawberry jam.

You're not limited to your own pictures. Copyright restrictions permitting, you can use pictures in a wide variety of formats from many sources. If you have a school project on Venice, you could find a photo of the city (try the Internet); crop it to the right proportions; apply one of the ripple effects to go with the watery theme; then output it on your colour StyleWriter as a front cover. (If you don't yet have a colour printer, see MACFORMAT 38 for the best buys!)



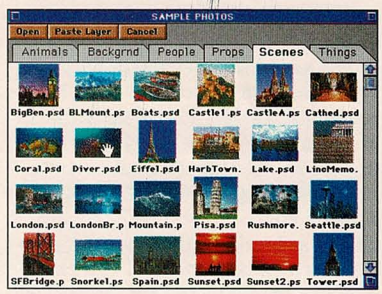
PhotoDeluxe has a good set of painting tools, including a variable-sized eraser. Note the anti-aliasing for smooth joins.

Getting in the picture

But we don't all get our pictures transferred to Photo CD, do we? Fortunately, *PhotoDeluxe's* on-line help explains how to import and export files in most standard graphics formats. You can also hook up your Mac to a *Photoshop*-compatible scanner.

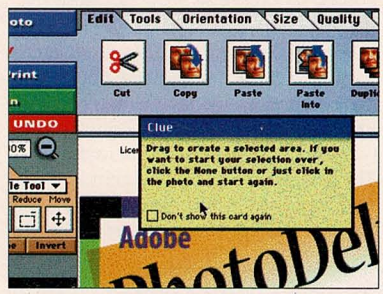
Photoshop? You'll hear that name a lot in connection with *PhotoDeluxe:* it's also produced by Adobe, and *Photoshop* is the industry-standard image manipulation package on the Mac. Many hardware and software products are therefore designed to be *Photoshop*-compatible, and this includes special effects filters. More on these later.

It's no coincidence that *Photoshop* and *PhotoDeluxe* are so compatible: the two programs share basic processing code. Where they differ is that *Photoshop* is a high-powered professional design tool with features that would baffle a rocket scientist, while *PhotoDeluxe* is a slimmed-down, friendlier version. It's aimed specifically at people who want to have fun with their photo albums without having to make a complete study of a vast technical manual first.



PhotoDeluxe comes with well over 100 sample photographs for you to practise on.

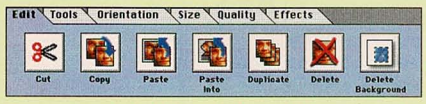
You can see this in the way the program is designed. All Mac applications are worked via a menu bar running across the top of the screen – except this one. *PhotoDeluxe* uses an extremely non-standard way of displaying its options, using buttons and tabs rather like the tabs on cards in a filing box. The idea is that you choose



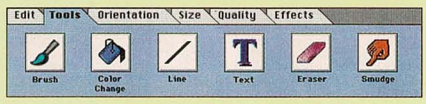
These helpful little windows keep popping up to tell you what to do next. Once you know, you can cancel them forever by clicking the checkbox.

TOOLS OF THE TRADE

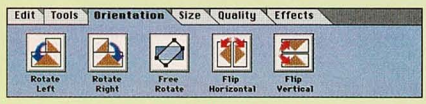
Although it may at first appear to have a beginner-orientated interface, *PhotoDeluxe* does actually have quite an advanced set of photo retouching tools. You can access these from the program's distinctive tab and button based interface. (The tabs at least are reminiscent of parts of *Photoshop.)* You'll find the major image editing tabs by pressing the **On Your Own** button on the main screen, then the **Modify** button.



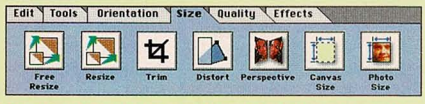
Once you've selected the part of your picture you want to work with, the **Edit** tab contains tools for deleting your selection, cutting and pasting selections, and duplicating a selection and deleting a background (removing everything in the picture outside your selection).



The **Tools** tab is where you'll find gadgets to help you edit your pictures. You can modify your pictures with the brush tool, change colours, add lines and text and erase or smudge over unwanted details.

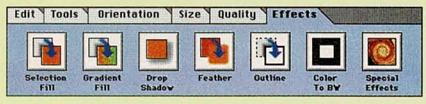


The buttons on the **Orientation** tab enable you to rotate your selection (either in 90-degree increments or by using your mouse to rotate it to just the angle you want). You can also flip your selection into a mirror image of itself along a vertical or horizontal axis.



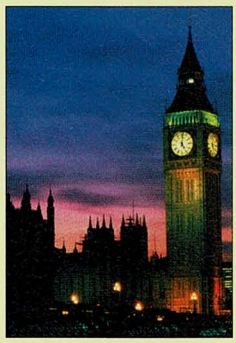
The **Size** tab contains a variety of tools, including resize buttons (you can resize freely or retain the same proportions). You can crop your picture, distort it or even create a 3D effect. You can also increase or reduce your working area or the size of the picture itself.

The **Quality** tab contains some useful photo retouching tools that can fix anything from poor exposure to dusty negatives. You can also modify your pictures' colour balance and even their apparent sharpness.



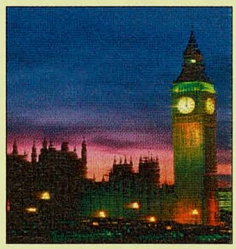
The **Effects** tab is where you start having fun, and where *PhotoDeluxe* gets interesting if you're a designer. The **Selection** and **Gradient Fill** buttons, for example, enable you to add smooth-toned colour to backgrounds. 16 special effects come as standard.

SPECIAL EFFECTS

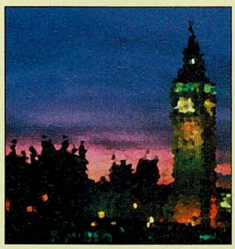


You can add panache to your pictures with *PhotoDeluxe's* range of special effects filters. You can add more with *Photoshop*-compatible plug-ins. Here are a few:

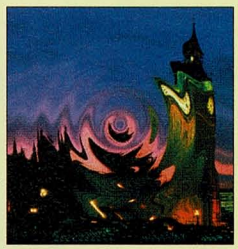
This picture of the Houses of Parliament is one of the many sample images supplied on the *PhotoDeluxe* CD-ROM.



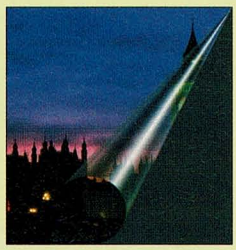
Three different **Wind** effects enable you to add smudged streaks to the image to simulate the effects of wind.



The **Crystallise** effect gives the appearance of looking through frosted glass.

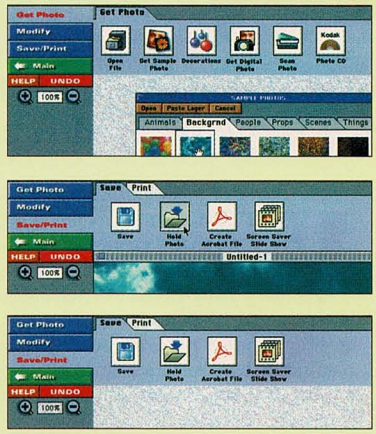


Pond Ripple simulates the appearance of circular ripples on a water surface.



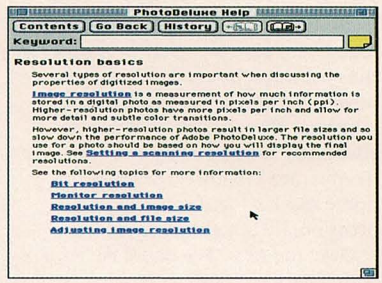
Page Curl is one of five sample *Kai's Power Tools* effects you get with *PhotoDeluxe.*

ONE AT A TIME, PLEASE



Oddly, *PhotoDeluxe* won't let you open more than one file at once. If you want to combine images you have to:

1. Open your chosen file.
2. Click the **Hold Photo** button to save the image in a special directory, and then open the next file.
3. Following that you can work with all the 'Held' photographs using the **Hold Photo** window.


PhotoDeluxe Help
Contents
Go Back
History
Keyword:
Resolution basics
Several types of resolution are important when discussing the properties of digitized images.
Image resolution is a measurement of how much information is stored in a digital photo as measured in pixels per inch (ppi). Higher-resolution photos have more pixels per inch and allow for more detail and subtle color transitions.
However, higher-resolution photos result in larger file sizes and so slow down the performance of Adobe PhotoDeluxe. The resolution you use for a photo should be based on how you will display the final image. See Setting a scanning resolution for recommended resolutions.
See the following topics for more information:
Bit resolution
Monitor resolution
Resolution and image size
Resolution and file size
Adjusting image resolution

The real documentation is on-line. You can use the contents listing or click on the hypertext links (blue text) to move between related sections.

the activity you want to carry out (modifying a picture, for example), then select the appropriate tab. Each tab reveals a set of buttons, one for each of the actions you can carry out.

Confused? If it makes it easier, think of the tabs as being just like ordinary menus, with each of the buttons working like individual menu options. Or, if you prefer a more standard interface, full menus and keyboard shortcuts can also be switched on.

Do what you want

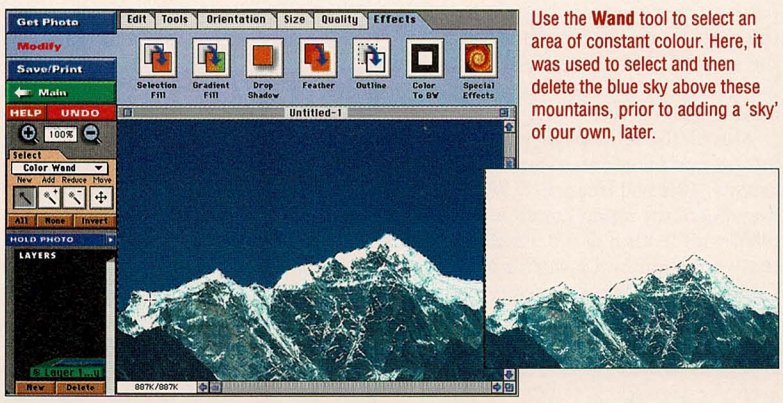
PhotoDeluxe's tab-and-button interface is very effective, especially for beginners. While most programs are feature-based, *PhotoDeluxe* is task-based. In other words, it's built around the things you might want to do, not all the things it *can* do.

For a program that does an awful lot, the manual is worryingly slim. Thankfully it contains some very good tutorials that explain the software's main features quickly and simply. To back this up, there's an extensive on-line **Help** system with hypertext links so that you can quickly find the information you need.

PhotoDeluxe may be an adaptation of *Photoshop*, but in other respects it's a very new sort of product. You might find its task-based interface odd at first but it's very soundly thought-out in an age where computers are increasingly being used by the non-technical.

There is a downside. Your images use a lot of memory and disk space as you move them around, and if you make use of photo-realistic images with millions of colours you'll use even more. Don't even think of trying to run *PhotoDeluxe* on a Mac with 8Mb of RAM. It might handle most tasks reasonably well, but the moment you try to load a big picture (more than a megabyte or so), or attempt to create a montage with layers, your Mac will pretty much grind to a halt.

So, all in all, *PhotoDeluxe* is a bit of an odd fish. It's designed (and priced) for amateurs, but using it for compositing images – with layers, at any rate – takes more time and RAM than most home users are likely to have. Its power and features could make it an attractive budget buy for graphics professionals, yet it lacks two essentials for professional publishing: precise colour control and CMYK output. If you want to fiddle with digital images for on-screen use and have hardware capable of running it, *PhotoDeluxe* is a brilliantly innovative and powerful package, unbeatable at the price. Otherwise it's something of a solution looking for a problem to solve. **MF**



Use the **Wand** tool to select an area of constant colour. Here, it was used to select and then delete the blue sky above these mountains, prior to adding a 'sky' of our own, later.

ADOBE PHOTODELUXE

Price: £88. **Out:** now.
Requires: LCIII or better, 8Mb of RAM (12Mb for PowerMac), 45Mb of hard disk space, System 7.0 or later, 256-colour monitor, double-speed CD-ROM drive.
Contact: Adobe on 0181 606 4000.

FEATURES 89%
Serious photo manipulation power and *Photoshop* compatibility, but lacking a couple of key 'pro-level' features.

EASE OF USE 81%
Easy interface, but some dialogue boxes (especially relating to colour adjustment) drop you in at the deep end.

DOCUMENTATION 75%
You'll find everything you need to know in the on-line **Help**, but a thick printed manual would be nicer.

VALUE FOR MONEY 86%
A taste of *Photoshop* at a fraction of the price – if your hardware's up to it.

MACFORMAT RATING 85%

WHAT YOU GET

With *PhotoDeluxe* you also get a trial version of DiAMAR's *Better Photography* and a special version of *After Dark* so you can set up your favourite pictures as screen savers. There are also five special effects from MetaTools (maker of *Kai's Power Tools)* including **Vortices** and Curled pages. Then there's Adobe's *Acrobat Reader. Acrobat* is a system for creating files that anyone with the 'reader' application can view. *PhotoDeluxe* can output *Acrobat* files, meaning that if your friends don't have *PhotoDeluxe*, they can use the reader to look at them.

ONE FOR THE PROS?

Although PhotoCD has yet to capture the public imagination, digital imaging is surely the future of photography. There may come a time when your family snaps are downloaded straight into the TV in the lounge, where a 10 Terabyte molecular drive stores all your photographs in perpetuity. In which case, *PhotoDeluxe* will come into its own. Until then, it's really just a very powerful toy.

Ready for your test?

Mac programs can help kids learn about letters and words, but Derek Smith asks how well the latest titles complement what children are doing in school.

NOT INCLUDED

The National Curriculum places great importance on children writing, but none of these programs asks for that kind of input. The Curriculum also stresses the value of children devising and telling their own stories. None of these programs is ideal for this, but take a look at *Playtoons*, which was reviewed in MACFORMAT 35. (If you missed that issue, see page 119.)

While it could be argued that any education is better than none, there's little point in spending huge quantities of money and hours of your time on programs that don't complement what your child is being taught in school – and that means the National Curriculum.

Thankfully, the Mac has plenty of educational titles for you to choose from. While a few of these are work-based, and aimed primarily at schools, the vast majority are made up of a new breed of software called edu-tainment. These titles, which mix education with a strong entertainment flavour, are mainly targeted at the home market – although they are occasionally bought by schools.

Over the next five pages we'll be taking a careful look at a range of the latest English education titles to see how they match up to the National Curriculum, and equally important, how well they'll retain your child's interest. All the programs reviewed here are aimed at Key Stage 1, although some are suitable for even younger children.

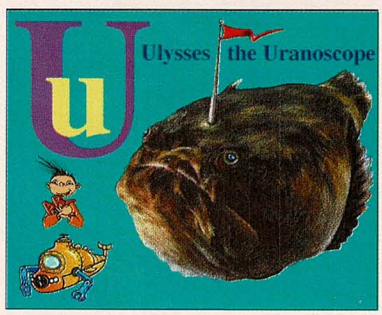
KEY STAGE

The National Curriculum is divided into main subjects across four Key Stages. Key Stage 1 covers 5-7 year olds, KS2 7-11 year olds, KS3 11-14 year olds, and KS4 14-16 year olds.

An activity lies behind each letter of the alphabet, but in *Peter's Alphabet Adventure*, the activities are not about English, so much as about animals.

WORDS OF WISDOM

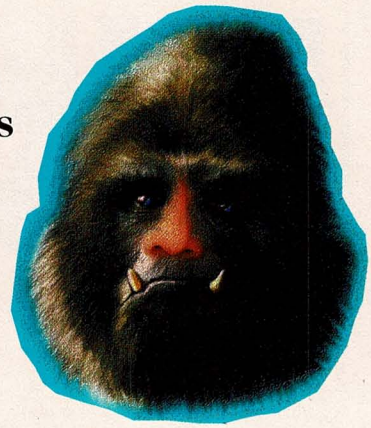
The National Curriculum says that 'Literature should cover... stories, poems and chants containing patterned and predictable language.'



I've always said that children are never too young to learn about uranoscopes, among other things.

Peter's Alphabet Adventure

Learn the alphabet with the help of Peter and his unpredictable friends.



Peter's Alphabet Adventure comes from the same company that brought you the extremely weird *Kevin the Kangaroo*, which scored 75% in MACFORMAT 35.

You start off, unsurprisingly, with a screen showing all the capital letters of the alphabet, A to Z – or should that be 'zee'? Although French in origin, this CD is pervaded by American words, accents and pronunciations. This is not a fatal flaw, but it does detract from the educational value of the overall package – particularly when plenty of the other programs manage to be multi-national without too much effort.

Click on one of the 26 letters and you are whisked off to another screen where you meet an animal whose name starts with that letter – for example, Katie the Koala or Ulysses the Uranoscope. If you're not sure what a uranoscope is, then stick around; you'll learn as much as your kids.

When you click on the picture of an animal, a verse about it is read to you by a child with an American accent. It would have been more useful if the verse were also written on the screen, partly so that your child would have the chance to learn how to recognise the written form of the words, and partly because the recording isn't very clear at all.

Also on the same page, you'll find a button that takes you to a related activity. This will frequently be a drawing of the animal's native habitat, filled with items and other animals that you might find in such a location. Clicking on these items results in animations, sound clips or a poor QuickTime movie. This is reasonably enjoyable, although the activities aren't very gripping, relying on quantity rather than quality.

That said, though, the game where you have to find the polar bear offers quite a lengthy and involving hunt because he's well hidden. Perhaps he's just embarrassed to be seen in this production...

Alas, *Alphabet Adventure* bears more relation to an old Walt Disney wildlife film than to the National Curriculum. Although it is supposedly a reading aid, it actually ends up teaching you more about animals and countries than about letters and how words are formed.

Still, there's a great deal to do and see, and although the animation is among the worst of the titles reviewed here, it's also certainly the wackiest and most unpredictable. Scorpions wear sombreros and yetis live up mountains with witches and aliens. Your children may not learn much about English, but they'll have a lot of fun.

PETER'S ADVENTURE

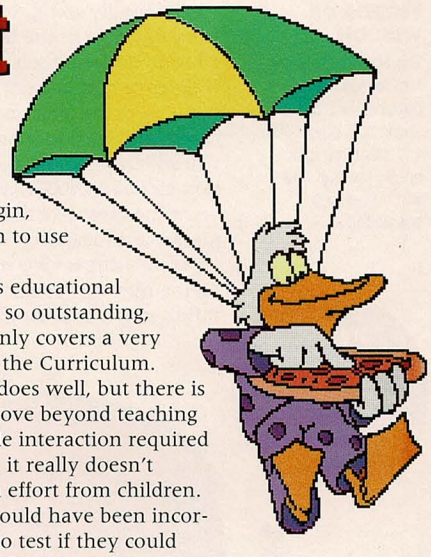
Price: £19.99. **Out:** now.
Requires: LC or better, 2.6Mb of free RAM, System 7 or later, 13-inch colour monitor, CD-ROM drive.
Contact: Ocean on 0161 832 6633.

CURRICULUM RATING 20%

MACFORMAT RATING 72%

The Interactive Alphabet

How interactive can an alphabet get?



Corel may be more famous for its clip photos than its educational programs (we've featured some of the former on recent Cover CD-ROMs), but it also produces *The Interactive Alphabet*, another program that teaches children their ABC.

Once into the program, you'll see a strip of all 26 letters, shown in both upper and lower case. Click on a letter and the program plays a recording of a poem. Unlike in *Peter's Adventure*, however, the poem is also animated on screen. Of more educational importance, the poem uses alliteration of the chosen letter and shows the text in a window at the bottom of the screen. Each word is highlighted as the poem is read, so your children can follow the text and learn the association between written and spoken English. Once you've heard the poem, you can click on any word to hear it again. Some of the more difficult words appear in bold, and when you click one of these you get a very good explanation of the word as it is used in the poem.

Once you've exhausted the poem, you can move on to another list of words at the bottom of the screen, all of which begin with the chosen letter. Clicking any of these words produces a good-quality animation demonstrating its meaning – click on 'Anvil', say, and you see a heavy anvil fall out of the sky and squash a letter 'A'.

There are about a dozen words for each letter of the alphabet, which, combined with those explained in the poems, makes an impressive number of words for your children to learn.

The animations are high quality, and the interface is well designed – you can access everything from a single screen without jumping back and forth. The voice-overs are very clear, and although you can tell it is American in origin, there's an option to use British spellings.

The program's educational qualities are not so outstanding, though, and it only covers a very small portion of the Curriculum. What it does, it does well, but there is no attempt to move beyond teaching nouns. With little interaction required beyond clicking, it really doesn't demand enough effort from children. Perhaps a quiz could have been incorporated into it, to test if they could recall the words they encountered.

You do get a lot for your money, though, so if you're looking for software that covers some of the National Curriculum and entertains your child, *Interactive Alphabet* fits the definition.

This is American, so don't expect a story about Y-fronts when you click on the word *pants*.

All the letters are accessible from every screen, so it's easy to jump around the alphabet.

INTERACTIVE ALPHABET

Price: £23.50. **Out:** now.
Requires: LCIII or better, 4.6Mb of free RAM, System 7.1 or later, 13-inch colour monitor, double-speed CD-ROM drive.
Contact: Channel Market Makers on 01703 814142.

CURRICULUM RATING 45%

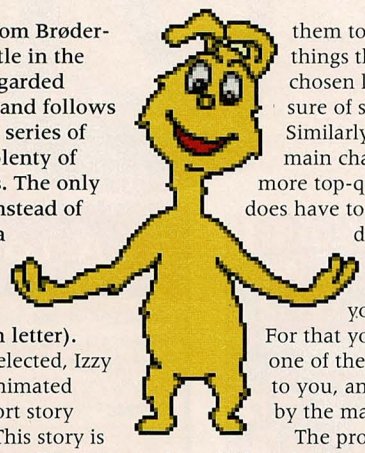
MACFORMAT RATING 80%

WORDS OF WISDOM

The National Curriculum says that 'Opportunities should be given for recognising alliterations, sound patterns and rhyme.'

Dr Seuss's ABC

Take your child to see the doctor and have some fun! (That's the kind of doctor he is.)



Dr Seuss's ABC from Brøderbund is one title in the company's well-regarded *Living Books* series, and follows the usual format: a series of pages containing plenty of hidden animations. The only difference is that instead of reading a story in a conventional order, you can jump about its 26 pages (one for each letter).

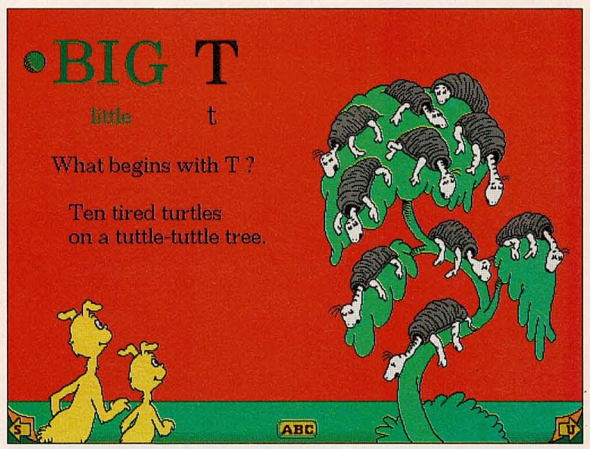
Once a letter is selected, Izzy and Icabod, your animated hosts, tell you a short story about a character. This story is also animated, it uses alliteration and, as in *The Interactive Alphabet* (reviewed above), you can also see the words used to describe it.

Clicking on Izzy or Icabod causes them to tell you about other things that start with the same chosen letter, and you can be sure of some fun animation. Similarly, clicking on the story's main characters leads to yet more top-quality animations. It does have to be said, though, that despite being very slick and enjoyable, this animation is not what you'd call educational. For that you can try clicking on one of the words – it is read back to you, and sometimes explained by the main character.

The program's design leaves a little to be desired. To jump from one letter to another non-adjacent one involves returning to the main screen, going through to an options screen that shows all the letters, and then on to the letter page itself. It's a poor substitute compared to *The Interactive Alphabet's* simpler and better design.

Dr Seuss's ABC is probably the most polished of the alphabet programs but, like the rest, it fails to stretch children much beyond learning that 'A' stands for apple (and 'M' doesn't necessarily stand for Microsoft).

It's a common problem with educational programs of this ilk, but with a little effort you can make the software work better for you. After all, if



There's an impressive amount to do on these screens – each turtle offers your children a different animation, as do Izzy and Icabod.

Continued on next page

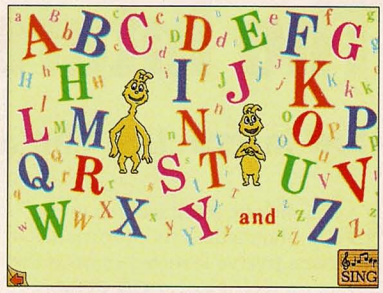
WORDS OF WISDOM

The National Curriculum recommends opportunities for 'exploring, developing and clarifying ideas, predicting outcomes and discussing possibilities.'

you're simply going to sit your child in front of a Mac in the hope that he will educate himself, then you might as well leave him in front of the TV.

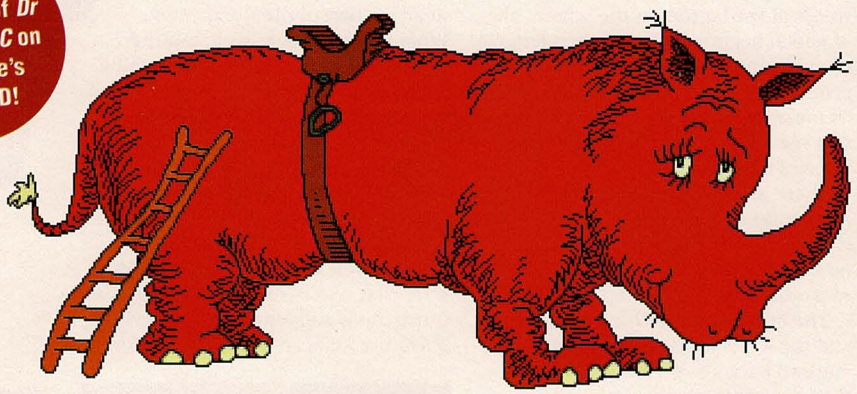
Much of the National Curriculum is based on common sense, but reading it will still inspire you. For instance, it says children should predict outcomes. So, using ideas like this, you can augment the educational value of the program by using it *with* your child and asking him, for instance, what he thinks might happen if he clicks on the bird. This causes him to think about the problem, and formulate a sentence that explains his thoughts.

With plenty of animations and things to click on, this program will keep your children occupied and it's well worth the money. Of course, the professionalism of the CD-ROM will probably be more important to you than to your child, who no doubt just wants to have fun. But then, Brøderbund knows who actually spends the money and buys children's programs!



You can sing the ABC song. The zee can be a tad too much to bear.

Try out the demo of *Dr Seuss's ABC* on this issue's Cover CD!



DR SEUSS'S ABC

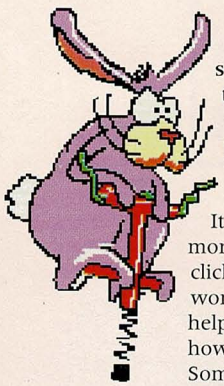
Price: around £30. **Out:** now.
Requires: LC or better, 2.6Mb free RAM, System 7.0 or later, double speed CD-ROM drive, colour monitor.
Contact: Living Books on 01429 520250

CURRICULUM RATING 40%

MACFORMAT RATING 82%

A to Zap

Fun and games to be had, all the way from A to Zap.



Our last alphabet program is a particularly jolly affair, with some well-drawn cartoon characters. Unfortunately, it's not very inventive, and follows the usual pattern of clicking on a letter of the alphabet, then playing an associated activity.

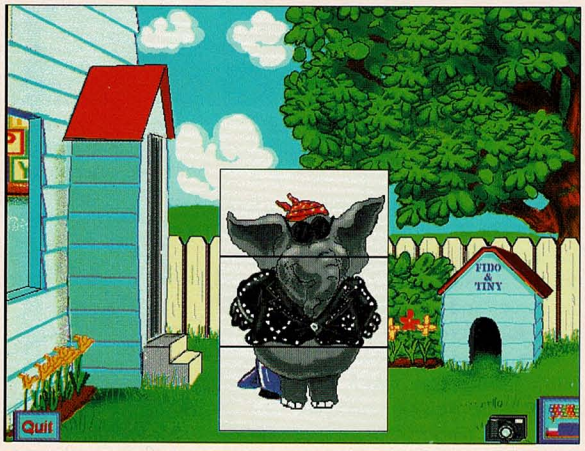
It does make the effort to be a bit more educational, though. When you click on a letter, the corresponding word is spelt out letter by letter, helping children begin to understand how words are made up of letters. Some of the activities also try to be educational in themselves. For instance, clicking on the letter O takes you to a screen where you can learn about the word 'over' by helping a pink rabbit jump over a set of acrobatic turtles. Perhaps H should stand for hallucination. When you later choose the letter U, you're taken to the same screen, but this time the rabbit does his best to go *under* the turtles.

The standard of animation is excellent, as is the sound quality, and children will definitely want to explore this program. There's quite a lot of variety, and it's less predictable than the other ABC programs. When you click on H, for instance, your pointer suddenly turns into a hammer. You can then click the hammer on the other letters in the introduction screen to spell out whatever words you want.

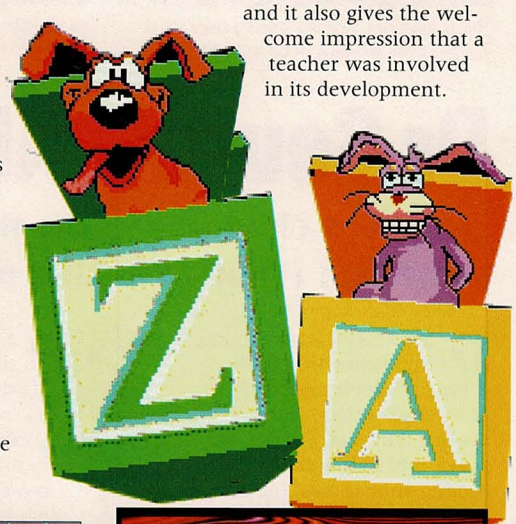
Again this is a US product, but the preferences screen has an option to pronounce the letter Z as 'zee' or 'zed', which is a nice touch. It may be a small quibble, but kids have enough to do without having to cope with two different names for one letter. H is for Hooray.

Of the four ABC programs, *The Interactive Alphabet* is the most wordy, and perhaps more suitable for slightly older children. *Dr Seuss's ABC* represents the best value, because it has the greatest number of animations. *Peter's Alphabet Adventure* has little to recommend it compared to the others, unless price is your main consideration. Although *A to Zap* is not particularly inspiring – it has to be said that some of the screens offer disappointingly few things to do or objects to click on – it really is an enjoyable romp. It demands the most participation from children, and it also gives the welcome impression that a teacher was involved in its development.

It doesn't have much to do with learning English, but matching the elephant's clothes is good fun.



The letter M gives you a great screen for playing music – almost certainly guaranteed to drive suffering parents from the room.



A TO ZAP

Price: £34.99. **Out:** now.
Requires: LC475 or better, 2.4Mb of free RAM, System 7.0 or later, 13-inch colour monitor, CD-ROM drive.
Contact: ABLAC on 01626 332233.

CURRICULUM RATING 42%

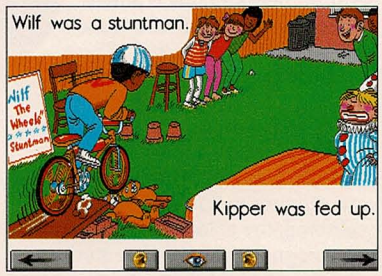
MACFORMAT RATING 80%

Talking Stories

Why not read a good children's book on your Mac?

Talking Stories offers some serious educational material; the stories are exact duplicates of the *Oxford Reading Tree* series of paper-based books. British made, this product is aimed squarely at schools and is designed to fit in with the National Curriculum. But if your school can't afford them, you should probably consider buying them for your children.

There are five sets of *Talking Stories*, and we looked at the fifth, designed for the most capable children, and consisting of six books by Alex Brychta. Each story is told over approximately ten pages, with each page containing one or two sentences. On each page of the story is an ear icon, and clicking this causes the text to be read aloud – in this case by Sinead Cusack. Hannah Gordon and Richard Briers lend their talents to other titles in the series.



These simple stories, well told, will go a long way towards helping your child learn to read.

Once you've listened to the narration, you can click on individual words if you want to hear them again, or click on the eye icon to see an animation. Sadly, children already exposed to the *Living Books* style series will be disappointed by the half-hearted wiggles that make up the animated sections. This is mainly down to the limitations of the floppy disk format – this is the only floppy-based title here.

At the end of each story there's a review of the most interesting words used during the narrative. This recap requires the presence of an adult to encourage discussion about each word's meaning, and is an indication of the strong educational element of *Talking Stories*. Rather than teaching kids that 'Z' almost always stands for zebra, this program aims to teach them to read – and it's sure to help.

The accompanying notes are the most comprehensive offered by any of the products reviewed here. They go into great detail about how the program can be used, what input parents and teachers can make and ideas about how to use the computer version with the paper version of the same story.

Aimed at early Key Stage 1 and children with reading difficulties, this is a brilliant product for parents willing to spend some time and money helping their offspring learn to read.

The quality of the drawings and animation is very basic, but for the intended audience, that's not really a problem.

TALKING STORIES

Price: £40. **Out:** now.
Requires: LCII or better, 2Mb of free RAM, System 7.1 or later, colour monitor.
Contact: Sherston on 01666 840433 or e-mail **sales@sherston.co.uk**

CURRICULUM RATING	95%
MACFORMAT RATING	80%

There's a demo of *The Babysitter*, one of the Talking Stories series, on the Cover CD

Read, Listen and Learn

Who needs teachers when there are Muppets around?

This CD is a collection of three separate programs, each of which teaches a different aspect of English. The 'Beginning Sounds' section teaches children that the first letter of a word can affect the way the word sounds. Luckily, it avoids words like 'know', and 'physics', which could really test your ability to explain.

There are 22 games in total, all featuring your favourite Muppet characters, including Kermit, Miss Piggy and Animal. Most of the games are disappointingly similar, though, with gameplay consisting of clicking on items that start with a particular letter. This lack of variety is a shame, especially because the program starts off so promisingly, with a game in which you have to decide whether two words rhyme or not. Unfortunately, the concept of rhyming never turns up again.

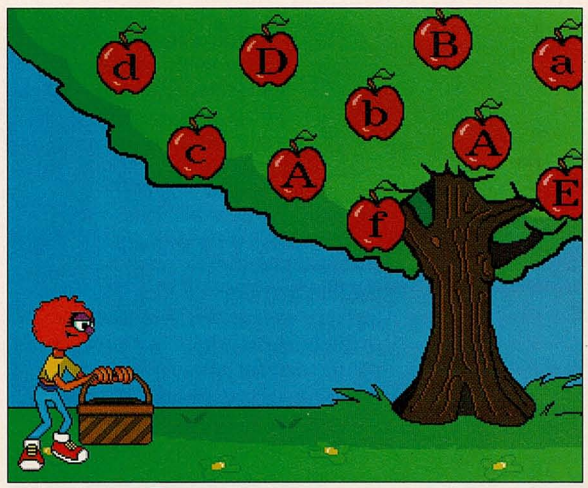
The 'Letters' section teaches children about upper and lower case letters. This is a good thing for children to learn, but again the games are very repetitive, simply involving recognising letters and then clicking on them. For instance, in one game you have to click on all the apples that have an 'A' on them, and that's it.

Again, there were promising signs. In one game you have to guide Gonzo through a maze by dismissing eggs that have a letter E on them. More entertaining, but it's still merely a matter of clicking on the right points.

Some of the games in *Read, Listen and Learn* actually do quite a good job of showing that sometimes the only difference between a capital and lower case letter is the size. But if you want a child to work through all 22 games, there needs to be more variety, more interaction and definitely a better reward than a feeble ditty at the end of each game.

The game 'Same and Different' teaches children the meaning of words in another series of unvaried activities, where you have to indicate whether the pictures are – you guessed it – the same or different. One game is slightly

Continued



Animal may once have been the wild Muppet, but in these modern days he's become vegetarian. Tragic.

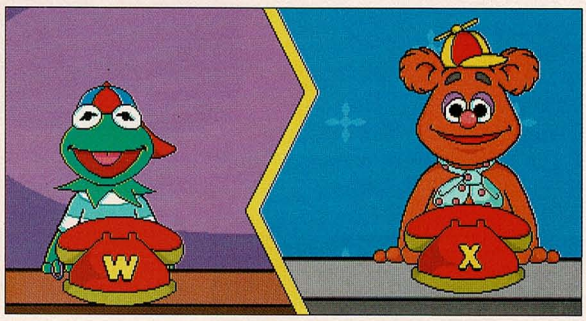
MATHS TEST

Look out in a future edition of MACFORMAT for a spotlight on the latest maths titles to judge how they match up to the National Curriculum.

more inventive, where you have to spot the difference between two pictures. Unfortunately, the pictures aren't shown side by side, but in succession. This makes it fairly easy to see which items have suddenly disappeared or moved. It's also a missed opportunity that none of the games try to teach about opposites.

Although the three programs on *Read, Listen and Learn* come on a single CD, their floppy disk origins are all too obvious. The animation is simple and uninspired, as is the sound. This is a shame, because there's so much potential for animated fun with these well-known TV characters. There should be tons of sampled sounds from the TV series. In fact, this CD almost smacks of shareware, especially because there are a few bugs. For instance, unless you manually change your monitor to 256-colours before beginning, the colours get mixed up, and you end up with a blue Kermit!

It has to be said that with three programs, each containing around 22 games, the £20 that *Read, Listen and Learn* costs is very good value for money. It tries very hard to be educational, but despite the sheer number of games, they focus on only a few tiny elements of the National Curriculum. However, if your pride and joy is a fan of the Muppets, then this will keep them happy for ages.



When the letters on both phones are the same, Kermit can give his friend a call. It's good to talk.

Don't miss the demo of *Read, Listen and Learn* on the Cover CD

READ, LISTEN AND LEARN

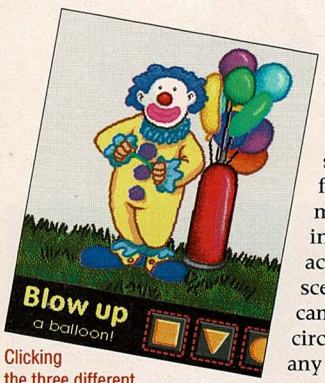
Price: £19.99. **Out:** now.
Requires: LC or better, 1Mb of free RAM, colour monitor, CD-ROM drive.
Contact: Iona on 0181 2969454.

CURRICULUM RATING 45%

MACFORMAT RATING 76%

Word Stuff

A great way to learn about English and... stuff.



Clicking the three different buttons causes the clown to perform three different actions.

Word Stuff introduces your child to more complex words that are relevant to everyday situations.

Word Stuff from Sanctuary Woods proudly boasts on the box that it conforms to the National Curriculum, so you expect good stuff from the start – and for the most part you get it. The intro screen gives you access to four different scenarios, including a farm, campsite, frozen lake and circus. Once you arrive at any one of these scenes you can choose one of three activities: I Spy, I Play, and I Sing.

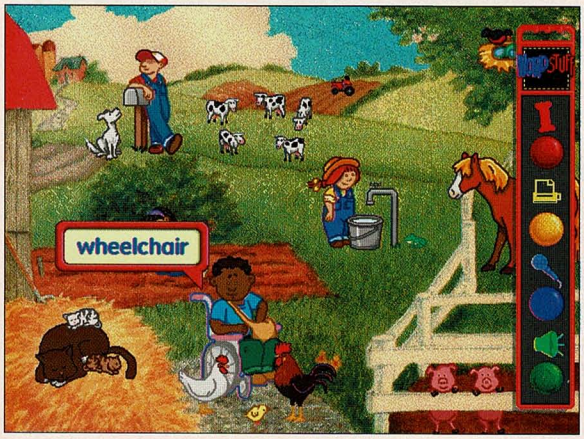
In 'I Spy' you click on an object in the scene, then have to say its name before the computer does. The scenes are very well drawn, and there's a lot of attention to detail – even the mouse pointer is highly animated. The problem is that there are only 15 items to click on, so once the child has learned them, the game becomes rather redundant. Ideally, it should have included a couple of different scenes in each scenario.

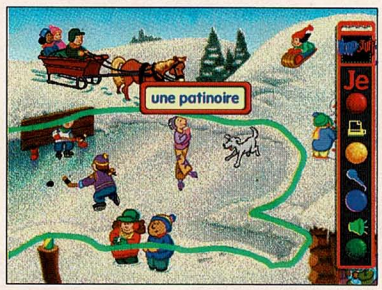
In 'I Play' you revisit the same scene, but this time when you click on the characters, you bring up a window containing an interactive animation. These animations teach you about 'action' words, opposites, and 'noisy' words. (Admittedly, there aren't too many references to noisy words in the National Curriculum.) For instance, there are three ways to make the clown blow up a balloon. Once you see them, you might consider one method to be correct and the other two wrong, but that's not important. What is important is that it gives children a lot of scope to discuss what they see and develop a grasp of verbs.

A typical animation about opposites sees a camp master being plagued by flies. You can make the flies attack either his head or his feet, offering the chance to discuss 'high' and 'low'.

The 'I Sing' section involves singing a different song in each of the four scenes. You can choose to listen to the song being sung in order to learn it (though unfortunately the words aren't printed in the manual), or just have the music by itself so you can sing along, karaoke style. The music plays directly from the CD, so the quality is good, and you can also play it in the car on the way to the beach. Hours of fun!

Interestingly, the whole program also comes in French and German. Often this is not much help in learning a foreign language, because it's too advanced for the intended age range. And if you give the same program to older children whom it would suit, they're insulted at being presented with a youngster's game. But because of the types of activities here, such as naming single objects in a scene, it's ideal if you want to start acquainting children with French or German.





The whole program comes in English, French, and German, so it can also be used to help children with some basic words. Handy.

All of the titles reviewed in these pages have to find their own balance between education and entertainment. The simple truth is that it's easier to produce whizz-bang entertainment than really good educational material. There's no doubt that *Talking Stories* takes the lead in education, but *Word Stuff* isn't far behind, and has better graphics and sound. For the conscientious parent, at home, *Word Stuff* could be ideal. **MF**

WORD STUFF

Price: £19.99. **Out:** now.
Requires: LCIII or better, 2Mb of free RAM, System 6.0.7 or later, colour monitor, CD-ROM drive.
Contact: Centregold Multimedia on 0121 606 1800.

CURRICULUM RATING 75%

MACFORMAT RATING 85%

MIP

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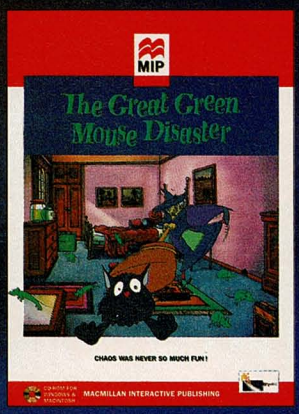
THE SECRET OF LEARNING



The Great Green Mouse Disaster
for children aged 5-11

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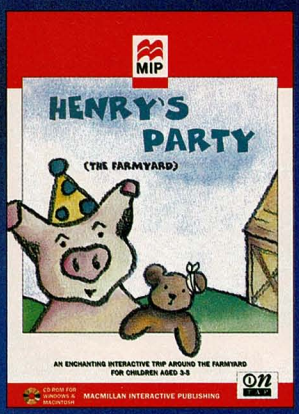
- High quality hand drawn animations and specially composed music

... Quite simply Great Green Fun!



Henry's Party (The Farmyard)
for children aged 3-7

- Recommended by the National Council for Educational Technology
- Offers an unparalleled number of learning activities including telling the time, painting, and shape, letter and pattern recognition

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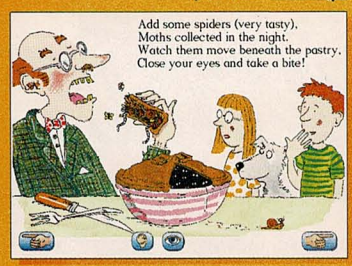
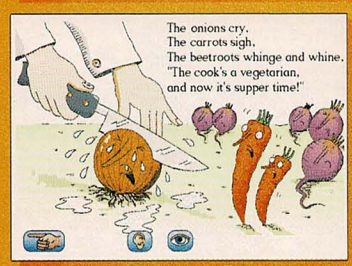
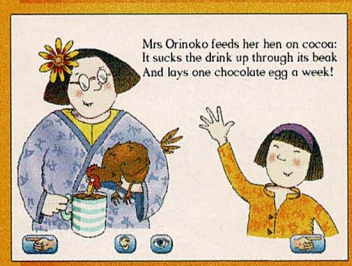

Add some spiders (very tasty),
Moths collected in the night.
Watch them move beneath the pastry,
Close your eyes and take a bite!





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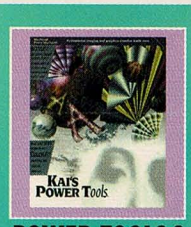

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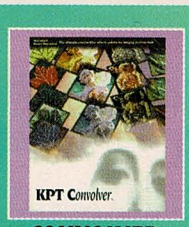

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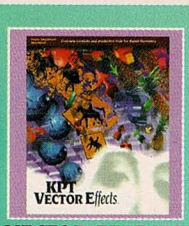

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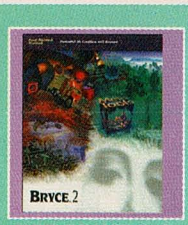

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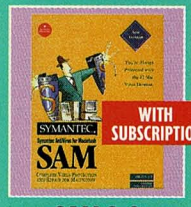

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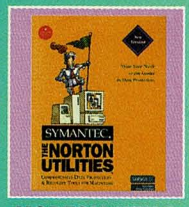

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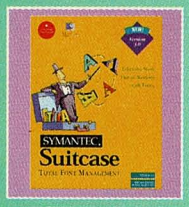

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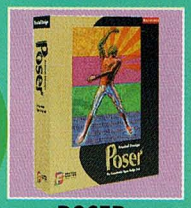

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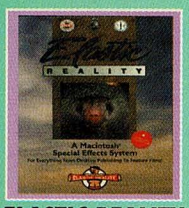

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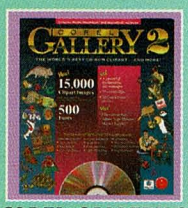

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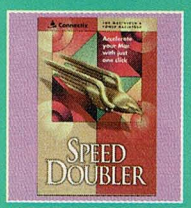

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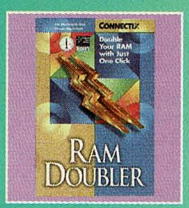

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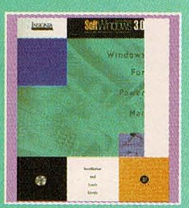

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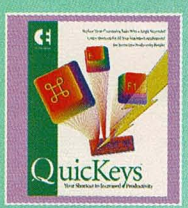

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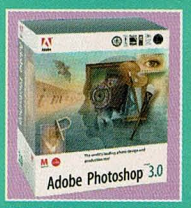

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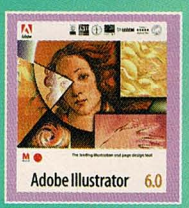

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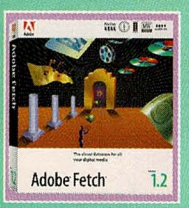

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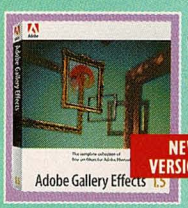

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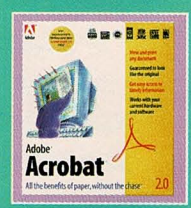

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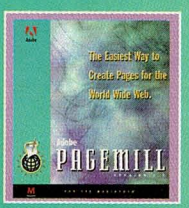

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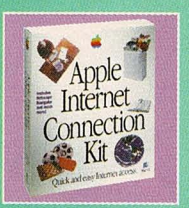

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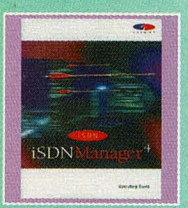

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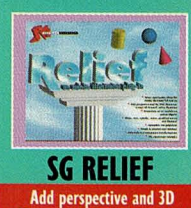

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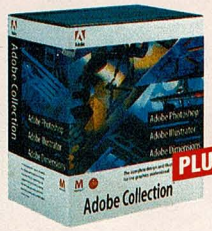

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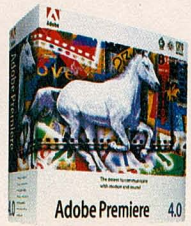

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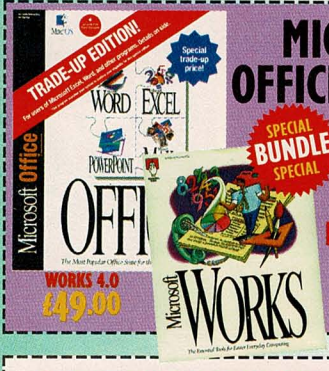

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Batman Cartoon Maker

Zap! Kerpow! Smak! Uhhnnnnn!!! For very little cash, you can animate the world's favourite superhero team, but is this new package a high-flyer or a Joker?

Holy bus passes! Batman is almost 60. Bob Kane's cartoon strip first started in 1939 (the year after *Superman*). There was a black and white TV version before the high-camp 1960s TV series with Adam West and Burt Ward, while recent big-budget Hollywood films have spawned a new generation of fans.

For many people, the 1960s version was the best, particularly because of the trailers they put on before the episode – an earnest-looking Robin talked about Batman's stunts and said, 'Kids, don't try this at home.'

Well, this fills in that gap. Kids, now you *can* try all Batman's stunts at home, using the *Batman Cartoon Maker*. Take backgrounds, figures and objects from a library, use the mouse to animate them, and you have a cartoon of any length. You're provided with an assortment of Batmans and Robins running, swooping and jumping, plus various Batwomans, Catwomans, Penguins, Jokers, Commissioner Gordons and bitpart pedestrians, rats, and policemen.

It's very easy to use – there are no menus and no commands, just icons and mouse clicks (with some spoken help on any menu item if you want it). In fact, it's so simple a child of five could use it, which is precisely the age limit specified; but there are advanced features that will tax any adults who fancy themselves as a Hanna or Barbera.

Experimentation is great fun and you can see your animations come to life almost straight away

Any program aimed at kids has to be usable straight away, merely by using a process of experimentation. *BCM* passes that test: the experimentation is great fun and you can see your animations come to life almost straight away. Saving your work is automatic, and file housekeeping is kept to a bare, and intuitive, minimum. There's also a handy crib sheet for adults who don't have time for all that.

The main problem is, however, that everything is sequential – that is, you can only have one character animated at a time, and you can only undo the very last thing you added. Still, it keeps things simple and fast, which are the key principles when designing with children in mind.

A nice feature is the capability to add your own soundtracks – especially as the music supplied is fairly ordinary, off-the-peg, synth-action stuff. There are no sync problems either: *BCM* will adjust the length of a scene – for example a talking head – to fit the length of the soundtrack – for instance, spoken dialogue. The results won't be perfect, but then the world of cartoons isn't perfect either.

The playability of the product may be limited to the time span of your children's infatuation with the Dynamic Duo, but at less than the price of a family trip to the pictures, this is an excellent bargain. It's been well thought-out, cleverly and clearly presented and it produces some very plausible cartoons. **Rob Ainsley**

Close-up faces can not only be animated to make it look like they're talking, you can also record your own soundtrack over them. Here the Penguin is asking the shoe shop owner if they have anything in a size 26.

The Trace library enables you to trace outlines of characters so you can make your own hand-drawn cartoon scenes.

A typical screen in *Batman Cartoon Maker*, created by dropping the individual figures onto a background and using the mouse to animate them. The Penguin cackles in the background while Batman and Robin are running round, trying to find a toilet in late-night Gotham City.

Price: £19.99. **Out:** now.
Requires: Quadra or better, 8Mb of RAM, 6Mb of hard disk space (more recommended), System 7.1 or later, 13-inch, 256-colour monitor, CD-ROM drive, QuickTime 2.0.
Contact: Random House New Media 01621 819898.

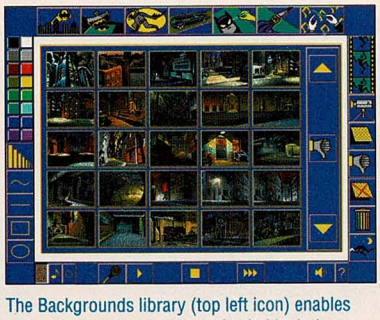
MACFORMAT RATING 83%

I WAS KAISER BILL'S SUPERHERO

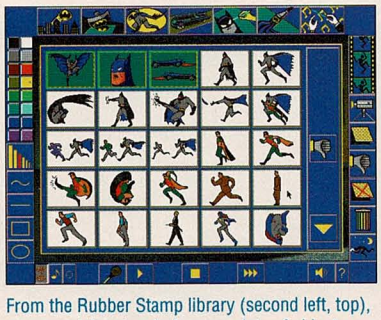
Bob Kane's original 1939 cartoon has Bruce Wayne pondering a way to fight the crime wave. 'I must be a creature of the night,' he thinks, when a bat flits past, giving him the inspiration. At first he was 'The Batman' – no doubt bewilderingly for British army types.

STRAIGHT BATS

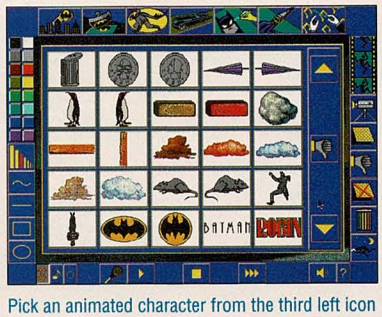
Bats find their way around by echo-location, and the astonishingly sophisticated way this works is detailed in Richard Dawkins' book *The Blind Watchmaker*. Depending on your viewpoint, it is conclusive proof of either the existence of God or the complete opposite.



The Backgrounds library (top left icon) enables you to choose from dozens of suitably dark Gothamesque scenes.



From the Rubber Stamp library (second left, top), you can pick out and place a variety of objects into the picture.



Pick an animated character from the third left icon at the top. Place into a scene and use the mouse to make them run, jump and shout for help.

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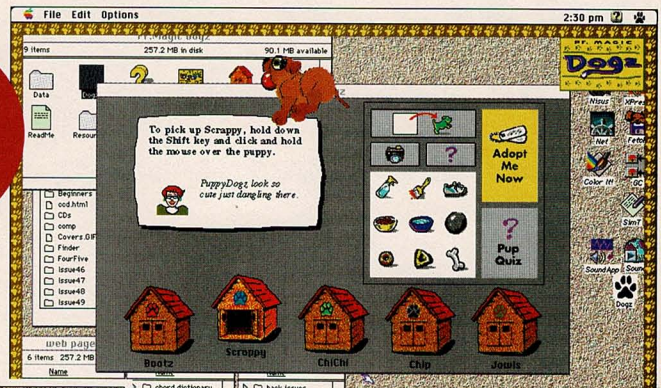
Dogz

A screen saver, security system and playful pet? Mac's best friend? Pooper Scoopers at the ready as we try out this canine caper!

Try out the *Dogz Adoption Kit* on the CD-ROM!



DOG BY ANY OTHER NAME

The word *dog* is unique to English and unrelated to any other language (whereas *hound* and *canine* have many European relations). However, by a bizarre linguistic coincidence, in Walpiri (an Australian aboriginal language) the word for *dog* is *dog*.

CYBER DOG!

You can even register your pet on a Web site if you're that way inclined. See *Dogz* at **www.pfmagic.com /dogz/adopt**

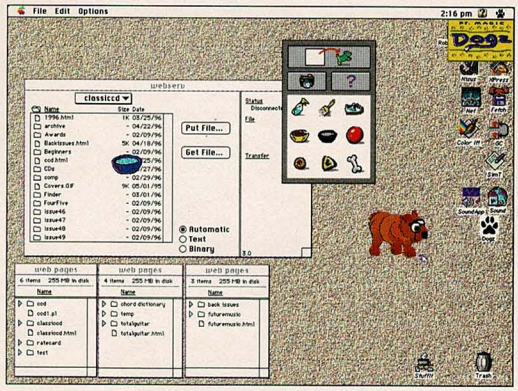
Remember: a four-legged friend, a four-legged friend, he'll never let you down. When the ruins of Pompeii were uncovered, archaeologists found a dog lying across the body of a child, apparently trying to protect it from the fatal eruption of Mount Vesuvius. Dogs are faithful, fun and frustrating, and have been so since their domestication, which happened when our ancestors were still scratching out a living in caves. So what about their modern virtual incarnation as Dogz, a virtual pet?

Dogz is a bit of a mongrel, a hybrid of screen saver, password protector and virtual pet. It puts a dog on your screen, which you can confine to a window (its playpen) or let roam around on your Desktop. You can teach it tricks, feed and water it, stroke and pat it and play ball with it. It will keep lolloping round its play area while you use other programs, occasionally demanding attention and yapping. When you leave your Mac unattended it turns into a screen saver, howling at the moon in a black night sky. You can set it to guard your files too: if anyone types in an incorrect password, the dog barks merry hell at them. It even gets older, eventually turning into an adult dog and sadly becoming less playful.

Dogz as a screen saver: it really does howl at the moon, though mercifully you can turn it off. Shame the next door neighbour's real dog doesn't have the same on/off facility.

Set-up is easy. You play with five puppies on an initial screen and choose one to adopt. The animation is good, and your 'dogz' actions seem to be realistically random. *Dogz* did no harm to any other software during the test, and didn't appear to slow anything down. The password protection feature worked okay and it certainly caused amusement and curiosity in the office – the yelping and growling in particular brought on lots of smiling investigation. Whether you *really* want a puppy demanding to play ball while you're working on your Income Tax spreadsheet in an adjacent window is another matter entirely.

Here, your pet is happy to be stroked whilst confined to its playpen...

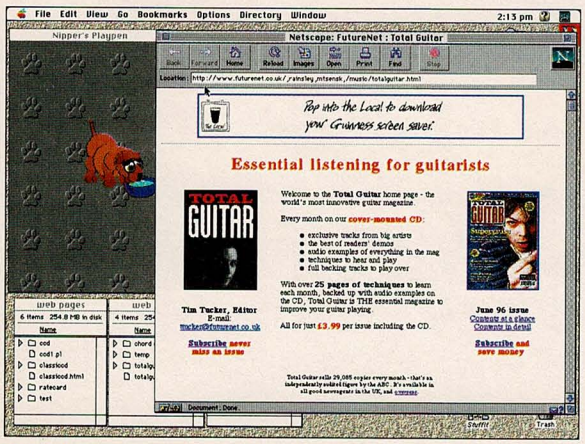


...but you can easily let it roam around the Desktop, although not when an application is open.

It even gets older, turning into an adult dog and sadly becoming less playful

But is it worth it? It's like with real dogs: other people's are always smelly, ugly and badly behaved, whereas your own are funny, cute and playful. If you like customising your Mac with quirky screén savers and making it do funny things, then *Dogz* could be for you. It's a novelty and no more, but one so reasonably priced that you may find it worth a month or more of use.

After all, one of the great things about Macs is how cuddly and easy to personalise they are. People love to make their Macs individual, with *Star Trek* sound effects or Monty Python clips instead of warning beeps, no matter how silly it gets. *Dogz* is very silly, but it's also a great deal of fun... Now where is that bone? **ROB AINSLEY**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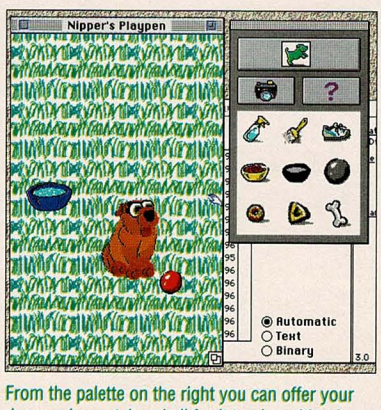

From the palette on the right you can offer your doggy a bone, take a ball for it to play with, give it food or drink and so on. You can change the background of the playpen and the colour of your dog, too.

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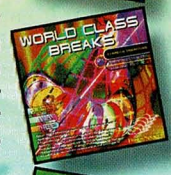

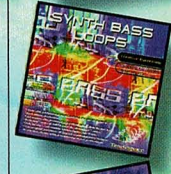

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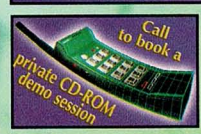

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Cubase VST

It's a MIDI sequencer, it includes digital recording and now Cubase VST puts a complete studio inside your Mac. Ian Waugh climbs inside to twiddle the dials.

Each audio channel can make use of between one and four **EQ** modules, giving you amazing scope for shaping sounds.

Virtual Studio Technology – VST – is the latest development from music software pioneer Steinberg. It's not a separate program or an add-on – it's an additional facility built into the latest version of *Cubase*. You'll need a PowerMac to run it, but not only does it include direct-to-disk recording, it also gives you on-board EQ and an effects rack to boot. It puts a total, virtual studio on your Mac!

The *VST* version of *Cubase* has all the normal *Cubase* features. The **Monitor** window is the first hint that something is different: this is an audio mixer that uses faders to adjust the volume levels of the audio tracks, **Solo** and **Mute** buttons and controls to change the pan position. But click on an FX button and up pops a very high-tech-looking **EQ** window. You can set the upper and lower frequency limits and select a frequency band within it for treatment. Presets are also available, and these offer you a quick selection of common frequency ranges. The window can be expanded to show up to four EQ modules and the amount of control this offers over the sound is enormous, as you can home in on and adjust four different frequency ranges. The only slight quibble with this modus operandi is that you can only adjust values using control knobs, which is a little fiddly. The ability to scroll through the numeric values directly would be very useful.

To the left of the EQ modules is a **Send** channel with four **Send** controls. These determine the amount of signal sent to each of the system's four effects units. The signals can be sent **Pre fader** (the volume level before the signal is routed to the **Monitor** fader) or **Post fader** (after the signal has been adjusted by the fader), just like on a real mixing desk. A **Dry** button at the top of the channel flips between the original and the processed signal, making it easy to compare the two. It's also worth pointing out that each audio channel has its own set of EQ modules and Send controls, giving you full independent control over each audio track. Again, this is just like a real mixing desk.

RAM ENOUGH FOR ALL

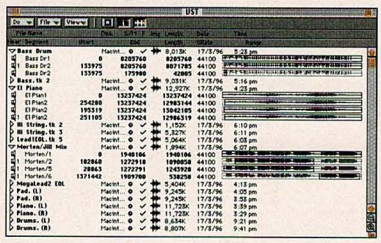
In the early days of computing, scientists believed that 4K of RAM would be enough for all the world's computing needs! Oh how we learn...

LOW FAT

We reviewed a cut down version of *Cubase – Cubasis* – in MACFORMAT 37. An entry level sequencer, it scored a MACFORMAT rating of 81%. If you missed this, turn to page 119 for details of how to obtain your copy.

Cubase VST in action. The new **Monitor** window controls volume levels and pan positions and opens the **EQ** window.

The **Audio Performance Meter** shows how your system is coping with the strain of playback. If the **Over** box flashes, that's a warning.



The **Pool** keeps track of your audio files and the segments you create by cutting them up. You can drag segments from here to the **Arrange** window.

Effectively speaking

The effects are the most interesting and exciting part of the VST system. The **FX module** looks like a rack of four effects units. You can set each one to any available effects type, a flexibility possible only by using a software-based system. There are currently four effects – **Choirus, ESpecial, Auto Pan** and **Stereo Echo** – and you can assign all four rack units to the same type, to four different effects or to any combination. Each module has an **On/Off** switch and a control to adjust the amount of signal entering the unit. A Clip LED warns if the signal is too loud so you can avoid overloading the unit, thus preventing your sound distorting.

Choirus offers a combination of chorus and flanger effects which thicken your sound and produce a sort of whooshing effect. **ESpecial** is the reverb section, containing a wide range of reverb types which can make a sound appear as if it was recorded in a room, a concert hall or the Grand Canyon! The **Auto Panner** enables you to move the sound around the stereo image in various ways, and the **Stereo Echo** module produces delay effects – in stereo! You can program all the effects and each module can store several programs, which you select with the Prog buttons. You can load and save individual effects and do the same with complete banks which contain all the programs.

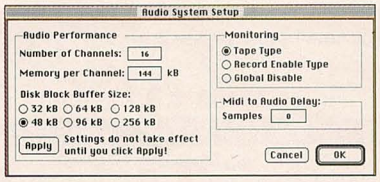
The parameters which make up the effects appear in the central display. **Page** and **Parameter** buttons scroll through the display, enabling you to select individual parameters for editing, which is done with the large

CUBASE BASICS – THEN AND NOW

Cubase began life as a MIDI sequencer – which it still is. It supports an unlimited number of tracks, on to which you record music patterns using a MIDI keyboard. You can then drag the patterns around your screen to create a song. *Cubase* has a wealth of facilities, including many sophisticated processing features which enable you to convert and transform MIDI data in a myriad of ways. *Cubase Audio* added to *Cubase* the ability to record digital audio tracks alongside the MIDI tracks. Audio data appears on your screen as patterns – similar to MIDI patterns – which can be cut, copied and pasted into the song just like MIDI patterns.

The integration of MIDI and audio is an ideal environment for musicians. Even if your music is purely instrumental, you can include samples from CDs, audio drum loops and so on. The addition of 'natural sounds' to what is otherwise a totally electronic piece of music can add an extra dimension to it. Of course, if you're recording songs, this combination is absolutely perfect. You can lay down MIDI backing tracks, add acoustic instruments over the top of this and then finally record the vocals.

Previous versions of *Cubase Audio* required you to buy additional hardware such as a Digidesign AudioMedia II card. *Cubase VST*, however, is written in PowerMac native code and therefore makes use of your PowerMac's built-in digital audio hardware.



If you want to squeeze the last ounce of performance out of your PowerMac, you may need to tweak the settings in the **Audio System Setup** window.

The **Monitor** and **Master** windows enable you to adjust the output volume levels and pan positions and switch the **FX** on and off.

THE NEW CUBASE 3.0 FAMILY

Steinberg has recently consolidated its family of *Cubase* sequencers to standardise all version numbers and features – they are now at version 3.0. *Cubase* is the standard program. It features the ubiquitous Arrange page where you can drag musical patterns around to create a song. It has all the features you'd expect of a high end sequencer, including sophisticated quantise functions, a MIDI Mixer, and event, drum, piano-roll and notation editors. *Cubase Score,* in addition, includes a more sophisticated notation module which supports up to 60 staves per page with 8-voice polyphony per part, text and lyrics and drum notation, alongside scalable views and printout features. There are two versions of each of these programs in their respective boxes; one is for non-PowerMacs and the other is a *VST* version for PowerMacs which supports direct-to-disk recording and all the effects discussed here.

Cubase Audio XT version 3.0 has all the features of *Cubase Score* plus support for external digital recording hardware, including Yamaha's DBX D3/D5 units. Again, you get two versions of the program. One is identical to *Cubase Score VST* and the other supports systems which make use of digital audio hardware.

In addition, Steinberg is currently bundling *TimeBandit,* which retails at £329, with *Cubase Audio XT.* This is for an unspecified time period. Although the standard audio versions of *Cubase* include both time stretch and pitch shifting facilities, *TimeBandit* is more sophisticated and offers higher quality, faster processing and several other additional features.

Value dial. Like the **EQ** settings, you cannot scroll through the parameter values directly. In this sense, it's very much like a physical rack-mount effects unit, which has to rely on buttons and dials for its operation. However, being software-based, the virtual rack could have been more graphic, for example by showing you all the parameters at once, or perhaps by providing a more visual indication of how the effects work.

The system is still easy to edit, although it does help if you know a smattering about effects processors. There are a few banks of effects to get you started, and the chances are, you'll find you don't need to venture any further afield than these. The effects really are excellent. The reverbs in particular – arguably the most important effect in your studio – offer a wide range of ambiences and are very clean.

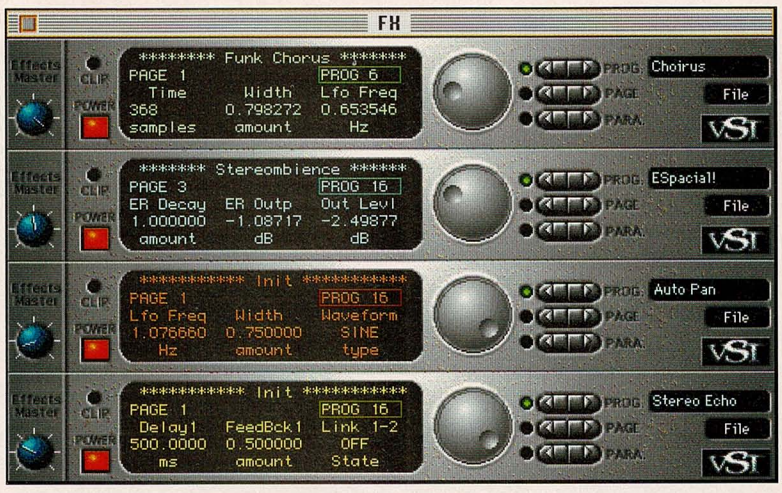
Open house

But, being software-based, the effects are not limited to the four types mentioned. *VST* has an open architecture which supports plug-ins, so in the future you will be able to load different types of effects into the modules. Steinberg is developing other FX types and so are third-party developers. Just exactly what will become available remains to be seen, but if the concept takes off it has the potential to become very flexible indeed. With luck, the cost of the plug-ins will reflect the low cost of *Cubase VST.*

There is, of course, a price to pay for all this: the *VST* system is capable of handling up to 32 tracks of digital audio and up to 128 EQs, but this requires a top-of-the-range PowerMac with lots of RAM and a very fast hard disk. The recommended system of a 7200/90 with 16Mb of RAM can handle 16 audio tracks and 32 EQs, while a 9500/133 should manage 32 audio channels and 64 EQs.

The most amazing thing about *Cubase VST* is that it's been 'thrown in' with the *Cubase* program. The standard version was reduced in price a few months ago – it's enough to crack a smile on the face of a bank manager.

Cubase VST is a major step forward in the development of affordable digital audio software and is sure to bring an avaricious gleam to the eye of any PowerMac-owning musician. **MF**



The **FX** rack contains four processors which you can assign to any of the available effects types, for example reverb, chorus, delay or auto panning.

JARGON BUSTERS

- **Direct-to-disk recording:** the process of recording audio, converting it to digital data and saving it to a hard disk on the fly.
- **EQ:** equalisation – posh term for tone controls.
- **MIDI:** Musical Instrument Digital Interface – a protocol for transmitting music data. MIDI handles information such as which key was pressed and how long it was held down for. It doesn't record the actual sound used.
- **Pan:** short for panorama. Pan controls enable you to move sounds around the stereo field.
- **Pitch shift:** a process which changes the pitch of a recording without altering its duration.
- **Time stretch:** A process which changes the duration of a digital audio recording by elongating or shrinking it, without affecting the pitch.

CUBASE VST

Price: £329; upgrade from *Cubase* or *Cubase Score* to *VST:* £119. **Out:** now. **Requires:** PowerMac 6100/66 or better (7200/90 recommended), 256K Level 2 RAM cache, 16Mb of RAM (24Mb recommended), System 7.5 or later. **Contact:** Computer Warehouse on 0171 724 4104.

FEATURES 94%
All the major effects you'll need and room for expansion, too, via plug-ins.

EASE OF USE 90%
Very point and click. The editing could be a little better, but it's still easy and there's no external wiring to deal with!

DOCUMENTATION 93%
A separate booklet covers the whole of the audio facilities. Excellent, but an index would make it even more useful.

VALUE FOR MONEY 95%
A year ago you'd pay more than this for a MIDI sequencer alone, and you'll still pay this much for an outboard effects unit. It's a total studio in your Mac for less!

MACFORMAT RATING 94%

OTHER STUFF

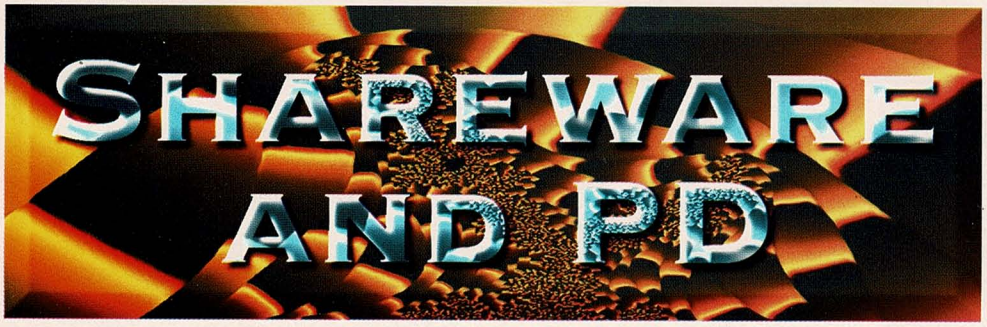
Cubase Score 3.0 and *Cubase Audio XT 3.0* are also available from Computer Warehouse, priced at £499 and £699 respectively. For more information call 0171 724 4104.
A variety of upgrade paths from other software are also available – again for more information about these, call Computer Warehouse.

GIGANTIC!

Recording digital sound eats up huge amounts of your storage space – CD quality stereo will easily munch away as much as 10Mb per minute. This means that while this software will work on your PowerMac, the more RAM and storage you have, the more you will be able to do.

HOW ARE THE PRICEY FALLEN

Only a couple of years ago you'd expect to pay around £1 per Megabyte for a hard drive. You can now buy a 1Gb drive for little more than £275!



It's cheap, it's simple and it's occasionally offensive. Yes, it's Derek Smith, and apparently he has yet another collection of shareware surprises.

All the shareware featured here and more is on our covermounted CD-ROM

BARWARE

This issue's margin notes are cocktails taken from the *BarWare* database. Just mix the ingredients and serve with a smile.

Why do these shareware authors do it? I mean, why spend hundreds of hours of your life creating a utility in the vain hope that during that time, society will suddenly change to become honest, and people who use their product will register it?

There's no doubt that you have to admire their skill, dedication, selflessness and gullibility. I especially admire the ones that create fully working versions rather than the programs which bring up those annoying shareware messages designed to prick your conscience.

It is thanks to the efforts and achievements of these wonderful people that we are now able to keep track of girder stresses, the position of the sun or the fax number of a good nanny. So do I pay for shareware? Well, I have to review it, see, so I'm exempt. No really, I'm sure I saw it in the small print somewhere...

Aaron 1.3.1

SYSTEM EXTENSION

Shareware $10

System 7.5.3 was a very welcome update to the Mac's Operating System. Not that it gave us anything new, it just fixed some of the bugs we've had to suffer recently, such as the dismal Open Transport network system and PowerBooks that couldn't be bothered to start up.

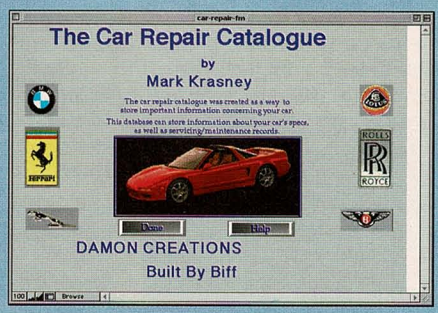
For significant new features we will have to wait for the next major revision – Mac OS 8, code named Copland. *Aaron* was created by a shareware author as a precursor of this wonder, hence the name (the composer Copland's first name was Aaron). So does it deliver pre-emptive multi-tasking? Cross-platform compatibility? Fully native System code? Well no, but it does make your Desktop pretty, putting cute 3D effects everywhere.

Folders appear on a slant and have shadows, windows have 3D style scroll bars and the Wastebasket icon turns into a dustbin. Indeed, the whole

IT'S DATABASE TIME

Your Mac may be able to do a host of glamorous graphical thingies, but don't let it rule your life. It's there to serve you, and one of its most useful tasks is to simply keep track of your records and information. I've seen databases used to track anything from anniversaries and job applications to menstrual cycles and the length of time since each pair of underpants in a collection got washed (that one was mine).

This issue in our database special, we have a collection of programs that can help you drive your partner to a restaurant, appreciate a good meal there, go back to your place and get drunk, get married, then find a baby-sitter for those kids that you'll end up having together. Boy, maybe these things really do rule your life.


car-repair-fm
The Car Repair Catalogue
by
Mark Krasney
The car repair catalogue was created as a way to store important information concerning your car. This database can store information about your car's specs, as well as servicing/maintenance records.
Done
Help
DAMON CREATIONS
Built By Biff

Car Repair is a database that keeps track of how long you've spent tinkering and playing with your favourite toy. I never thought I'd need a database for that.

Car Repair FM

CAR MAINTENANCE

Freeware

No, it's it's not a minority interest radio station serving a single postal code area: *Car Repair FM* is in fact a *FileMaker Pro* database. Unfortunately, *FileMaker* is not capable of producing standalone applications, so you'll need a copy of the program in order to open this database.

Car Repair, surprisingly, keeps track of the repairs you make to your car, either by yourself or at a garage. It keeps a running total of how much money you've spent and how many hours of your life you've wasted.

It's not terribly clever, doesn't have many features and runs quite slowly – rather like my Skoda in fact. The last thing in the world that I want to know is how much of my life I've wasted on the bloody thing, or more precisely, underneath it.

CookWare II

COOKERY

Shareware $7.50

I do like to be creative in the kitchen; but I also like cooking, so this caught my eye. Unlike *Cindy's Recipe* last issue, this is a *FileMaker Pro* database, making it much more flexible and easier for you to modify.

It comes ready prepared with 280 recipes, many with a pleasant American flavor (sorry – flavour), including fried dill pickles. In fact a lot of the recipes involve frying, which shouldn't come as much of a surprise. After all, it is the land of the free and the obese.

Your can add your own recipes, and find recipes using a search based either on their name or the ingredients they contain. This is ideal for sorting through the fridge, collecting all those items that are starting to show signs of decay and then finding a recipe in which you can use up as many of them as possible, all at the same time.

BarWare II

COCKTAILS

Shareware $10

From the author of *CookWare* comes the infinitely more useful *BarWare*, a database of 775 cocktails. In the finest tradition of journalism, I took the brave step of attempting to test all of them. Alas, before I'd got past Agent Orange, I failed. Actually, I fell.

For the less inebriated, there's also a selection of alcohol-free drinks, including some good teas. To fully test and enjoy all the recipes, you'll need a variety of equipment, the main utilities being a shaker, stirrer, microwave, strainer and ambulance.

Using the database is simple with its colour buttons and clear layout. Just as well,

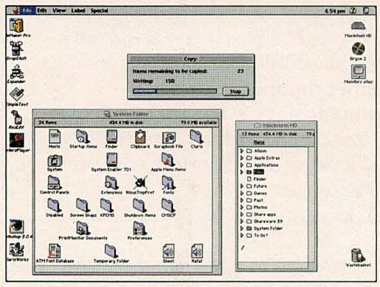
CookWare contains a host of recipes for vegetarians. Personally I like to barbecue them and serve with a mixed grill and thousand island dressing.

CONFUSED ABOUT SHAREWARE?

■ Shareware is a form of 'try before you buy' software selling and it's a great idea, so long as you're honest. When you get some shareware, the documentation file accompanying it will tell you how much it costs – typically somewhere between US$5 and $40 – and where to send your money. If you like the software and decide to keep it, you're morally obliged to cough up. Not only do you get the satisfaction of boasting how honest you are to friends, but the author will often give you something for registering, like a printed manual or updates when they're released. The most common problem is sending money abroad but as many shareware authors now accept credit cards, it's getting easier.

■ Freeware means that you don't have to pay for it at all. There are many variations like postcardware, where you have to send a pretty postcard to the author.

Freeware is not strictly the same as Public Domain (PD) because although you don't pay for freeware, the author keeps copyright and you must follow his conditions to use the program. This often means keeping all the files together and neither using nor selling them for profit.



Aaron is a potential forerunner to System 8 or Copland. I wonder when we'll see *George* (obscure joke number 1,634).

Desktop inherits the medium grey colour which is becoming pervasive across so many computer applications. So although it doesn't actually add anything new, it's ideal if you're the sort of person who can't wait till Christmas Day before taking a peek at your presents.

A word of warning. I know several people who have had bad experiences with *Aaron*. The problem arises if you are part of a sophisticated network, perhaps a big company set-up, or if you have a lot of very specialist software. Because *Aaron* hacks around with your System, it can cause problems when it comes across something new or unexpected, for example a Novell server. But if you're the sort of person who likes new gizmos, the future is now, the future is grey.

KeyWack

CHILD PACIFIER

Shareware $10

Your child and your Mac go together like a rabid dog and a fluffy bunny. The best security is to keep it permanently locked in a secure room with no windows. Unfortunately the NSPCC takes a dim view of this, so when you let the child out, you'll need to find another way to protect your Mac.

Turning your Mac off doesn't help with most modern Macs, because as your darling pounds frantically on your keyboard, it won't be long before he discovers the On button. If you're

CONTINENTAL

2 oz light rum
Half a teaspoon green creme de menthe
0.5 oz lime juice
Half a teaspoon superfine sugar

ABBEY COCKTAIL

2 oz gin
2 oz orange juice
2 dashes orange bitters
Maraschino cherry

MONKEY BUSINESS

2 scoops ice cream (any flavour)
1 cup milk
1 banana, broken into chunks
2 tablespoon cocoa powder
Dash of nutmeg/ cinnamon

Continued on next page

BarWare comes with some alcohol free recipes. I suggest you add vodka and serve with barbecued vegetarian.

considering the state you may be in by the time you finish. Goodness, this writing is tiring – I think I'll have another drink.

Heritage 3.01

GENEALOGY

Shareware $15

Disregarding the danger of discovering something unpleasant, many people choose to delve into their family history and discover their roots. By using people's memory and digging around in libraries and record offices, you can build up a family tree.

You can use *Heritage* to record all this data. It enables you to define the links between people and their offspring, write biographies of each person and even scan in archive photographs of them.

You can then produce trees showing the ancestors or descendants of an individual. This could also be useful for people doing research on other families like the Royals, for example. Luckily it supports multiple marriages and re-marriages, and because you can now have several photos of the same person, you could have one shot of a person getting wed, one in the gym, and one getting one's toe sucked.

I just wonder what will happen when our great grandchildren do their own research into the past, and amongst the birth certificates in the attic, they come across a strange 3.5-inch plastic thing that doesn't fit in their VR hologram machine. Perhaps data is more transitory than families.

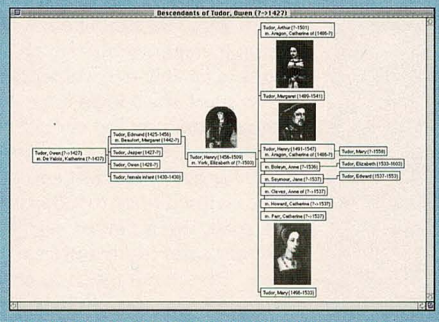
MacNanny 1.0

CHILD CARE

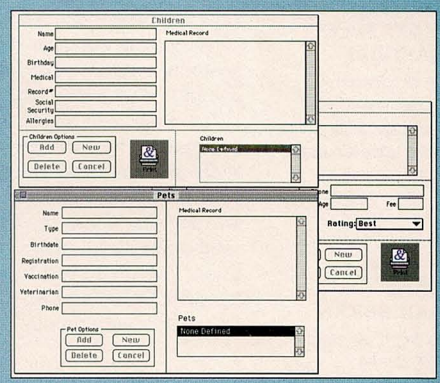
Shareware $15

The nanny society is a terrible thing – being made to wear seatbelts, contribute to a national health service and drink pasteurised milk. If I want to suffer major organ damage, die in squalor and catch the odd disease [*and some of them have been very odd – Ed*], that's my right as a Brit... and as an idiot.

Now we have to suffer the indignity of *MacNanny*. It's not a nanny that keeps you away from that nasty prickly System Folder; it acts as a nanny for those in our society who have the misfortune to own children.



Heritage comes with a sample family. Now you can clearly see the births, marriages, and executions.



MacNanny enables you to store information about your pets. Have these people never heard of the data protection act?

It's a standalone database that keeps track of all details to do with the care and safety of your little ones. You can enter data on baby-sitters such as name, address, age and, most importantly, fee. In fact the phrase 'can enter' is a little misleading – you *have* to enter all this and more before you can store their details. If you can't remember their post codes then you're in trouble.

You can also store relevant details on yourself and your baby, such as emergency numbers, medical details of the child – even details about pets! There's also a section to enter facts about the regular places you visit, so in an emergency the baby-sitter can phone round the pubs.

I'll grudgingly admit this would be useful in an emergency, but there is one problem. I'd let a baby-sitter use my video, drink beer out of my fridge, even play Russian roulette with my cat... but touch my Mac? I don't think so! Start looking for nannies who bring their own PowerBook.

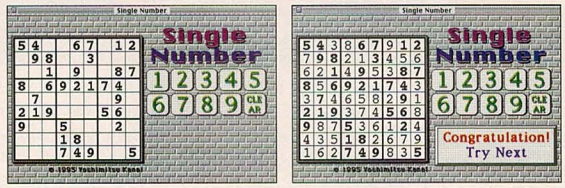
SEPTEMBER MORN

2 oz light rum
1 teaspoon grenadine
0.5 oz lime juice
1 egg white

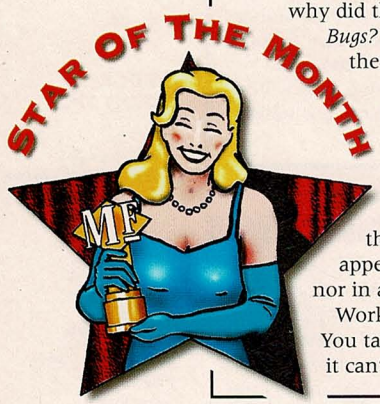
SingleNumber 1.1.6

PUZZLE GAME

Freeware



In order to complete the challenge of *SingleNumber*, you'll need to use logic, deduction, calculation and preferably the cheat mode.



There are many puzzles in life. How did the ancient Egyptians build the pyramids? Why is it that the more computers Apple sell, the bigger their losses are? And why did the BBC commission another series of *Bugs?* But if you seek yet more puzzles in life, then *SingleNumber* will be of interest.

The playing board consists of a 9 x 9 grid sub-divided into nine 3 x 3 grids. At the start of play, some numbers – all between one and nine – are placed randomly across the main grid. Your job is to finish it off by placing numbers in all the empty cells. The same number cannot appear twice in any horizontal or vertical line, nor in any of the 3 x 3 sub grids.

Working it out is a case of logical elimination. You take an empty cell, work out what numbers it can't contain because they are already on the same line or in the same sub-grid, until you are left with one possibility. On the more difficult levels, you start off with fewer numbers filled in, and it may not be possible to say for certain what number should be in a cell. You have to deduce the most likely answer, then work with it until you are proved wrong or right. If you are wrong, you can then take back all subsequent moves and replay the scenario with another number.

It's quite time-consuming but it's also very addictive. Mind you, my favourite *Star Trek* character was Mr Spock. If you thought he was a wimp and favoured Captain Kirk, then try out *Cyclone II* first.

AMERICAN BEAUTY

1 oz brandy
1 oz creme de menthe
0.5 oz dry vermouth
1 oz grenadine
0.5 oz port

FROZEN PINEAPPLE DAIQUIRI

1.5 oz light rum
4 pineapple chunks
1 tablespoon lime juice
Half a teaspoon sugar
1 cup crushed Ice

CAFÉ CARIBBEAN

0.75 oz amaretto
0.75 oz rum
4 oz coffee
1 teaspoon sugar
Whipped cream
(loads!)

How can a game as dull as *Battle Planets* require 8Mb of free RAM? I could write a game just as bad that only requires 2Mb.

really unlucky he'll discover the Reset button and the pleasant 'boing' it keeps making. The more you tell the rabid beast not to touch your Mac, the more he'll want to do it. So maybe *KeyWack* could solve your problem.

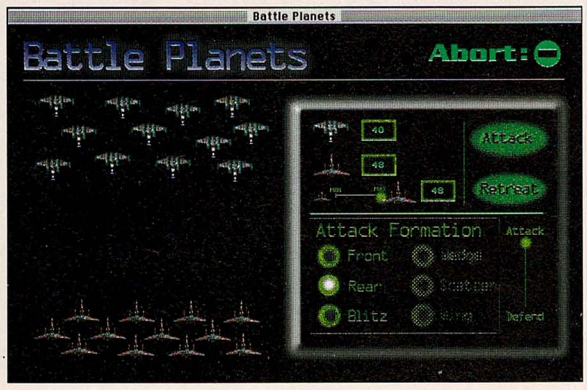
Rather than threatening the offspring of your loins with disembowelment, load this program up and let them try their worst. As they hit the keys and fondle the mouse with their jam-encrusted fingers, your Mac will generate random patterns on the screen and sounds from the speakers. This reward for abusing a Mac might be regarded by some people as needlessly enticing children to play with your keyboard. I guess it's taking the attitude that if you can't beat them (and that's illegal now), put up with them. You might just be spawning the next Bill Gates, and isn't that worth $10 of anyone's money?

Battle Planets

SPACE GAME

Shareware $8

The Read Me file for this game tries to entice you with the line, 'Have you ever commanded a starfleet in a rebellion against the evil empire?' A less exciting but more honest question might be, 'Have you ever been asked to part with good money for a really crap space game?'



KeyWack demonstrates that you can't start computing too young. Expect to see an input device for foetuses soon. It'll need a long cable.

Rather than a shoot-'em-up, this is a human-versus-computer strategy game played on a hexagonal board. In one corner of the galaxy is your rebel planet, while the empire's planet nestles in the opposite corner. You and your Mac then take it in turns to move squadrons of your space fleets toward each other in a thrilling session of clicking the mouse button.

When your two squadrons meet, they check their diaries and then usually decide to have a bit of a battle to the death. Once one side has lost the whole of its fleet, it loses the game, with the rather predictable result that for the next millennium the galaxy will be ruled either by the horrendous evil empire or the equally horrendous politically correct rebels. Poor galaxy.

These strategy games only work if they contain an element of skill and planning. For instance, in a WWII simulation, you should have to decide where to deploy your artillery. You ought to be able to consider the pros and cons of attacking a force which, although inferior, has control of the high ground. Should you attack at dawn, or have breakfast and wait for a more civilised hour to kill people?

A space sim is played in the permanent dark and in the pure vacuum of space. There's not much room for tactics unless you want to hide behind a fat planet, then pop out and shout 'boo' (an option, incidentally, which is sadly missing from *Battle Planets*).

Perhaps to add a bit of interest, you could hope one day to see a game where the all-powerful empire is run by a bunch of really nice people, who are threatened by a freedom-fighting band of dictator-supporting rebels dressed in black. A bit of gameplay wouldn't go amiss either.

Cyclone II

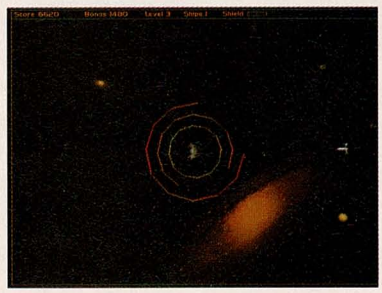
ARCADE GAME

Shareware $14.95

The original *Cyclone* game was hard and just a bit boring. *Cyclone II* is just as hard, but with a few enhancements and bonuses. The gameplay is a mixture of *Asteroids* and *Space Invaders*. In the centre of the screen is a huge plasma cannon, protected by three concentric rotating force shields.

Your little space ship flits around the screen taking pot shots at the shields to make holes in them. Once you've made a gap all the way through the three shields, you have a chance to shoot and destroy the plasma cannon at the centre. Unfortunately, being a plasma cannon it does what plasma cannons do best, which is blow little flitting space ships into tiny particles. This makes it very hard to shoot it before it shoots you.

The main tactic of the game is that you can fly off any edge of the screen, reappearing on the opposite edge, thus taking the plasma cannon by surprise. It's a good twist on arcade games and



Cyclone II gets too difficult too quickly. Of course it could be that I'm just pathetic at arcade games.

Maze Book

MAZE CREATION

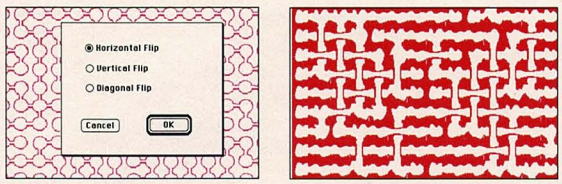
Freeware

Computers are very good at producing mazes. Mazes are mainly mathematical after all, so generating them is as easy as falling off a log file. Computers are also very experienced at displaying things visually and giving you many more options than a paper-based alternative. So it will be with quite some surprise that you'll discover this program is so extremely bad.

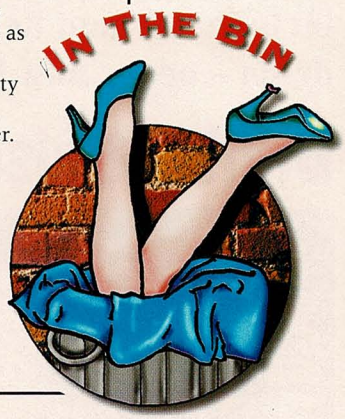
For some strange reason, probably best kept secret, the author decided to create his mazes using custom fonts, each letter holding a section of a maze. This results in stiff, formal mazes based on a grid system, rather than randomly flowing mazes that twist and turn at will.

Once you've created your maze, you can try to solve it. Now as every laboratory scientist will tell you, the best animals to use to solve a maze are mice. It's a shame that if you try to use your mouse, a message comes up saying that you have to use the keyboard arrow keys. Not only is using your keyboard laborious, but as the message vanishes, so does the part of the maze that was behind it. There are in fact plenty of bugs in this maze trying to get out.

Now it might be that the full version is better. Although *Maze Book* is free, it's really just a demo for the full version, which has many more types of mazes. To get hold of a copy, you'll need to purchase the *Wayzata Font Pro 5 CD*, which is actually rather a good CD-ROM in its own right. However, there are a couple of much better maze creation shareware programs out there, such as *Mazer 3D*, so this bloke can get lost.



Programs like *Maze Book* make you glad you didn't buy a colour printer.



is actually a lot of fun. It aspires in style to be like Ambrosia games such as *Maelstrom* and *Swoop*, but like Jimmy Nail aspiring to be a singer, it doesn't quite make it.

Décor 3.0.1

DESKTOP PATTERN

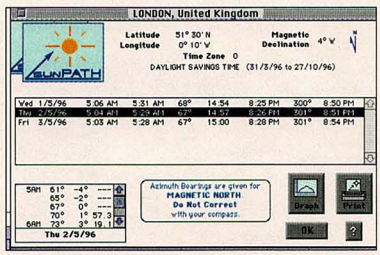
Shareware $10

The Desktop Patterns Control Panel that comes with System 7.5 is a great improvement over Apple's previous efforts. You can now have a picture up to 64 x 64 pixels repeated across your screen as your Desktop pattern.

As soon as you find this facility, you're likely to find yourself following the hallowed tradition of all Mac owners everywhere by downloading a picture of a bit of someone's anatomy, and plastering it across your Desktop. But 64 pixels square just isn't enough to fit the whole of Pamela Anderson on the screen, especially in profile. What you need is the ability to display a single picture as your backdrop.

Décor does just this. Once the Extension is installed, you simply drag a picture onto the application's icon and you have a custom backdrop. But as with so many good things in life, there's a catch. $10 is a reasonable fee for having Pamela Anderson on your desk [*I reckon it's a bargain – Ed*], but you're going to lose some RAM. For a picture to fill a 17-inch screen, the amount of RAM your System software absorbs will grow by about 2Mb. Admittedly RAM has dropped dramatically in price over the last six months, but at around £15 per megabyte, that's still quite an extra cost.

If you fancy some interior decorating and you have RAM to burn, then install *Décor*.


LONDON, United Kingdom
sunPATH
Latitude 51° 30' N
Longitude 0° 10' W
Time Zone 0
Magnetic Declination 4° W
DAYLIGHT SAVINGS TIME (31/3/96 to 27/10/96)
Wed 1/5/96 5:06 AM 5:31 AM 68° 14:54 8:25 PM 300° 8:50 PM
Thu 2/5/96 5:04 AM 5:29 AM 67° 14:57 8:26 PM 301° 8:51 PM
Fri 3/5/96 5:03 AM 5:28 AM 67° 15:00 8:28 PM 301° 8:54 PM
Azimuth Bearings are given for MAGNETIC NORTH. Do Not Correct with your compass.
Graph
Print
OK
Thu 2/5/96

sunPATH can tell you that at noon in the capital of Cameroon, the sun will be next to the moon.

sunPATH

SUN PREDICTION

Shareware $92

Hollywood is famous for producing many things, including films, gossip and salad dressings, but not noticeably shareware. This could be because its residents can afford commercial software, or maybe because they are too stoned to care much anyway.

At last, from the land of the sun comes a shareware program called *sunPATH* (I suspect the author's Mac has a dodgy **[shift]** key). It will tell you where the sun will be in the sky, from any location on Earth at any point in time. You may consider this rather extreme just to ensure a good sun tan, but it's aimed at film makers who need to get a particular shot.

The argument goes that if you find a good location for a scene, you'll want to know where the sun's going to be when you come to film there three months later. Will it set behind the right tree or cast just the right moody shadow? All this seems a little extreme to me, but then Steven Spielberg doesn't phone me up for advice. The shareware fee is fine for professionals, but if the author thinks he's going to receive many private registrations, then perhaps he's been out in the sun a tad too long.

Truss 5.2

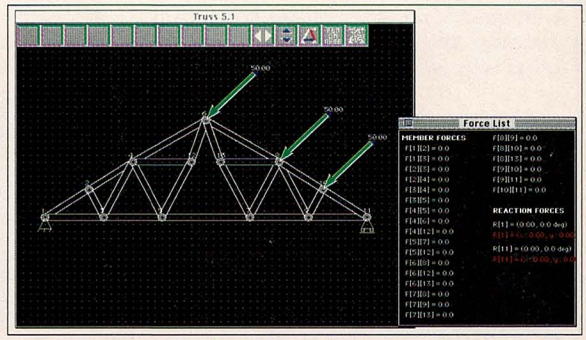
STRUCTURAL ENGINEERING

Shareware $25

Any program that boasts the ability to calculate the stress and forces of a truss has to be worth a second look. But this is nothing to do with support clothing for aging men: it will be more of interest if you're an engineer who needs to explore the behaviour of planar trusses under external loading. Who said shareware was dull?

You can create a variety of structures, testing how they behave under various conditions. Then you can create a movie of a car driving across your structure. No matter how much I tried, I couldn't design a bridge that would collapse as the car gets halfway, resulting in a huge explosion. Maybe I've been watching too many films.

You'll be disappointed to know that until you pay up, you can only practice with small structures. I can't really see who the target audience is for this product, as it certainly isn't sophisticated enough to enable you to design the next Trump Tower. Maybe schools teaching A-level physics might be interested: it could help them design the new science block they're trying to get a grant for. **MF**



I've used *Truss* for all the calculations, and now I can be quite certain. My house is about to fall down.

FRENCH 75

1.5 oz gin
1 teaspoon sugar
1 oz lemon juice
Champagne

57 CHEVY

1 oz Southern Comfort
1 oz Grand Marnier
1 oz vodka
1 oz pineapple juice

MERRY WIDOW

1.5 oz gin
1 oz dry vermouth
2 dashes benedictine
2 dashes Pernod
2 dashes orange bitters

BLOODY MARIA

2 oz tequila
3 oz tomato juice
2 teaspoons lemon juice
1 dash celery salt
1 dash tabasco sauce

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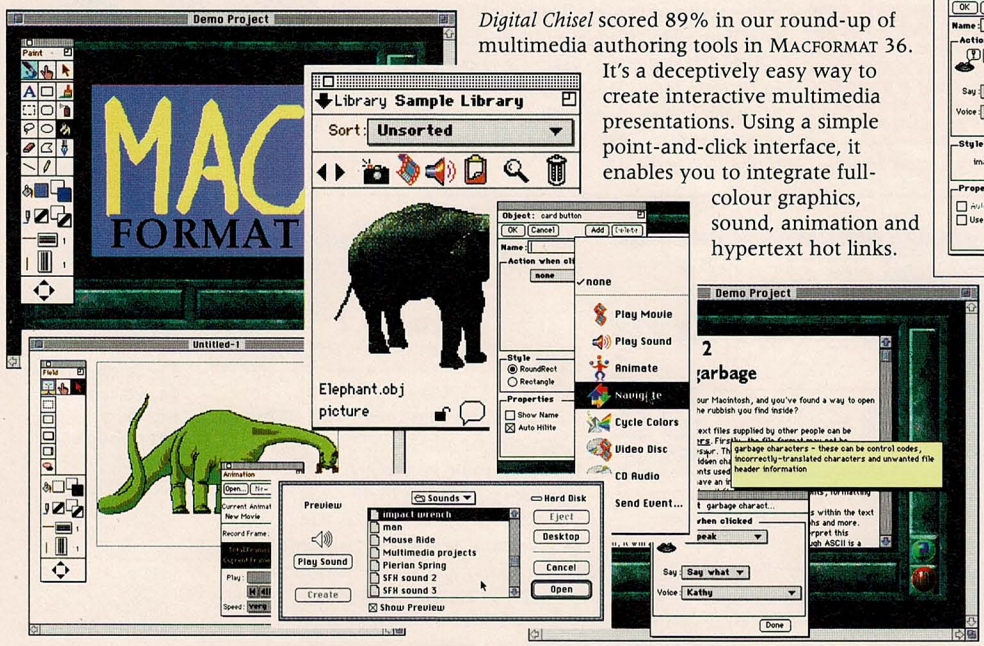
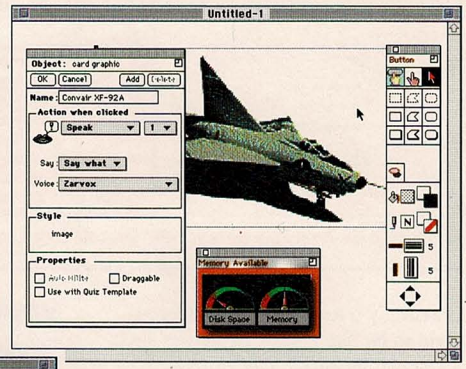
Digital Chisel 2.0



Digital Chisel scored 89% in our round-up of multimedia authoring tools in MACFORMAT 36. It's a deceptively easy way to create interactive multimedia presentations. Using a simple point-and-click interface, it enables you to integrate full-colour graphics, sound, animation and hypertext hot links.



Digital Chisel boasts built-in basic paint and draw tools, the ability to import or create animations, full control over text fonts and styles, sounds and even speech. It needs an LCIII with 4Mb of RAM (PowerMac with 8Mb recommended) and System 7.0 or later.

You won't find *Digital Chisel* in the shops, so take advantage of this special MACFORMAT offer now!

Price: £89
Order code: MCFDCH

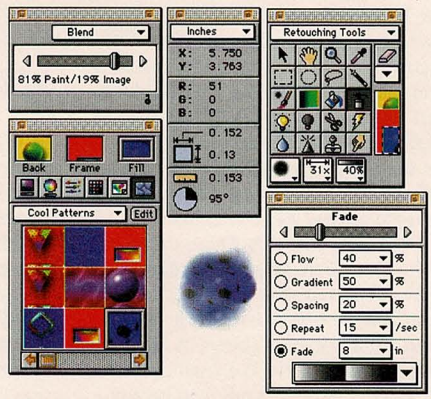
COLOR-IT!™

Version 3.0.4

The latest version – exclusive

We gave away *Color It! 2.3.5* on MACFORMAT 31's Cover CD-ROM and Disk (if you missed it, see the opposite page to order a copy). Now we bring you the exclusive chance to buy the NEW *Color It! 3.0.4*, to give you image editing features on a par with those of the mighty industry standard, *Photoshop*. This latest version of *Color It!* offers new, powerful features, including:

- Fully-native PowerPC version
- CMYK four-colour separation
- RGB channel editing
- Extrude and drop shadow filters
- User-defined Undo levels (up to 16)
- Levels and Curves filters
- Unsharp Masking filters
- Bezier Brush tool
- Kernel Brush tool



If *Photoshop* is beyond your budget, then the latest version of *Color It!* is a serious alternative.

- Crop tool
- Live filter previews
- Palettes combined to save screen space

... and much more.

Color It! version 3.0.2 rated a storming 88% in MACFORMAT 28. So don't miss out on this opportunity. This up-to-date version is available nowhere else in the UK, and *Color It! 3.0.4* is available from MACFORMAT for a limited period only. It can be yours for only £49.95, inclusive of delivery and VAT.

Price: £49.95
Order code: MCFCT3

MACFORMAT Back Issues Complete the set – only £5 each, including p&p.

ISSUE 27

August 1995

■ **On the disk:** *Anagrams, Word Breaker, Smart Calendar, Xearth* and *BattleTanks.*

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** the complete guide to portable Macs; Internet basics series; plus portable printers reviewed.

Order codes:
HD Disk MFHD27

ISSUE 28

September 1995

■ **On the disk:** *Catch The Buzz, Lobster, DragThing.*

■ **On the CD-ROM:** *Color It!, Dark Forces, Circle Elements* and *WorldWrite* demos, plus over 75 high-res clip photos.

■ **Inside:** image editing; what those Extensions and Control Panels *do*, graphics tablets, PaperPort scanner and *Dark Forces* reviewed.

Order codes:
CD-ROM MFCD28
HD Disk MFHD28

ISSUE 29

October 1995

■ **On the disk:** clip art, games and utilities, fonts.

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** eye-catching black-and-white DTP; clip art collections, *KPT Vector Effects,* language learning software and multimedia encyclopaedias reviewed.

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ISSUE 30

November 1995

■ **On the disk:** *MacPipes, MacQubic, Gossamer* and *Do It All!* personal organiser.

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** publishing on the Net and CD-ROM, QuickTime utilities, *Alone in the Dark, SmartSketch,* input devices – alternatives to the mouse.

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ISSUE 31

December 1995
Double-disc special!

■ **On two disks:** *Color It! 2.3.5* – full version, *Factory.*

■ **On two CD-ROMs:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** 50 ways to make your Mac run faster, *ClarisWorks 4, Doom 2, SoftWindows,* personal organisers, programming.

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ISSUE 32

Christmas 1995
Free MacGamer supplement!

■ **On the disk:** *Pentominoes, Frog Xing, Xmas Lights, FindText 1.3,* utilities.

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** create great art on your Mac, the new range of PowerMacs, *PageMaker 6,* kids' multimedia.

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ISSUE 33

January 1996
Free alternative manual!

■ **On the disk:** *Eclipse 3, Altair 2, Gravity Balls 1, TextBrowser 1.1, Aaron.*

■ **On the CD-ROM:** *Doom, Descent, Voodoo Lounge,* education demos and more.

■ **Inside:** what's happening on the Mac in 1996, *KPT 3, Day of the Tentacle, Aladdin,* guide to buying a Mac setup.

Order codes:
CD-ROM MFCD33
HD Disk MFHD33

ISSUE 34

February 1996

■ **On the disk:** *Disk Wizard, DOCMaker 4.1, SoundApp, ScreenShot, Symbionts.*

■ **On the CD-ROM:** *VIDI Presenter Pro 3.1* complete, *Infini-D 3, Amapi 2,* clip art.

■ **Inside:** new 3D graphics technology and software; storage systems; kids' multimedia; *ClarisImpact 2; Doom 2* tips; handling text files.

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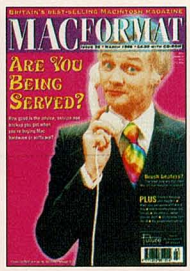
HD Disk MFHD34



ISSUE 35

March 1996
Free DTP tips book!

■ **On the disk:** *Smoothie, Shatterball, NoteBook Maker, Diagonal* and *BeerStack.*

■ **On the CD-ROM:** *Fractal Design Painter 4, Klik & Play, Code Warrior Lite* complete.

■ **Inside:** Mac service & backup assessed; Natural Media; *PageMill;* foreign file formats; *Marathon 2.*

Order codes:
CD-ROM MFCD35
HD Disk MFHD35

ISSUE 36

April 1996
Double-disc special!

■ **On two disks:** multimedia suite, including *ProView.*

■ **On two CD-ROMs:** *Apple Media Tool* plus demos of 8 authoring packages, *F/A-18 2.0, HoTMetaL 2, 3d-Active.*

■ **Inside:** create your own multimedia; CD writers; *Rebel Assault 2; Lightning-Draw GX;* 3D clip art.

Order codes:
CD-ROM MFCD36
HD Disk MFHD36

ISSUE 37

May 1996
Free MacGamer supplement!

■ **On the disk:** Guide to Mac upgrades, *Quark* game, *SimpleBackup, Fly Swatter.*

■ **On the CD-ROM:** Interactive guide to upgrading your Mac; *Full Throttle, InfoGenie* demos.

■ **Inside:** Giant fold-out Mac family tree; Mac upgrades; *FileMaker 3* and *Illustrator 6.*

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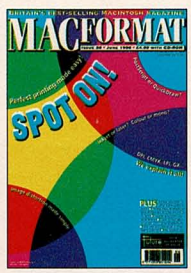
HD Disk MFHD37



ISSUE 38

June 1996

■ **On the disk:** Print utilities, freeware fonts, *Flippers, Biorhythms* and *Munchies.*

■ **On the CD-ROM:** *ClarisWorks 4.0 updater, Live Picture, X-Wing, Ice & Fire, World History* demos.

■ **Inside:** Perfect printing made easy, colour printers reviewed, *Live Picture 2.5, xRes 2.0* and *Bryce 2.*

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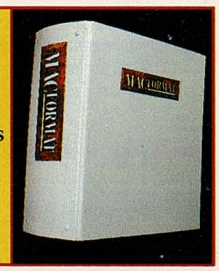

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Spycraft

The President has been threatened. As a trained spy it's up to you to stop the assassination and save the world. James Ashton goes undercover...

When Activision launched *Spycraft*, it threw a huge party at the Imperial War Museum. Those who felt comfortable having a drunken PR party surrounded by weapons of mass destruction were entertained by a whole series of spy-themed celebrities. New James Bond star Pierce Brosnan was there, as was a whole variety pack of political journalists and spy novelists, but the star guests of the bash were William Colby and Oleg Kalugin. The reason they're not exactly household names is that they're the former heads of the CIA and KGB respectively.

The idea of the party was to show just how authentic the new adventure game/simulator *Spycraft* was. A few weeks later when William Colby disappeared on holiday, the joke was that Activision had organised the whole affair to help prolong the hype for the game. It's a good job it didn't take the opportunity, because seven days later Colby's body was found floating face down in a creek. Accident, or the final settling of old scores? The truth is out there, Scully.

Spycraft is a worryingly complex game, or at least it gives that impression. From the beginning and low-key introduction onwards, it bombards you with background information and casually throws you straight into your first spy training. If you aren't feeling totally overwhelmed in the first 20 minutes, then you're quite clearly a spy already and should be relaxing with a game of *Marathon*.

Your first task is to qualify for your mission. To do this you have to outperform three of your young spy rivals. After a hard-faced briefing, it's off to CIA training ground The Farm for a bit of practice at image analysis and some shooting.

Most scenes like this contain clues and intelligence that are vital to the rest of the mission. Scan your mouse across the scene looking for investigative 'hotspots'.

If you aren't feeling overwhelmed in the first 20 minutes, then you're quite clearly a spy already

Presumably your rivals are having a bit of an off day as you should win through with disturbing ease. Don't get complacent, though. Challenge isn't really the point at this stage. The whole training set-up is really no more than a vehicle to introduce you to the way the game works and a few of the skills you'll need to play it.

Back in the briefing room it's time for the Paddington hard stares again – these people should really lighten up. The reason for the lack of smiles quickly becomes apparent. The President is threatened with assassination. No one knows who's responsible, and it's going to be up to you to sort things out before it's too late. Just as long as you feel you're not piling on too much pressure, boss.

Spycraft makes extensive use of full motion video. Most of the background information you receive is spoken by the people you meet along the way, and the clips also tend to mark your progression through the series of puzzles that are set. As was the case in *Angel Devoid*, you have a Personal Digital Assistant (PDA) that enables you to communicate with your base via e-mail and video-link, as well as go on-line and receive the latest world news. On top of this (as in any good adventure game) you have an inventory of items, clues and equipment to help you on your way.

Can you take the pressure?

The most impressive aspect of *Spycraft* is the way it creates so many different puzzle environments. A lot of adventure games limit themselves to a rather staid find/collect/use agenda,

21st Century Spy

If you thought that the end of the cold war would signal the end of East-West spy activities, recent events must have proved surprising. The expulsion of British diplomats by the Russian authorities proves the second oldest profession is alive and well.

Angel Devoid

If you're into thrilling interactive movie-style adventures, then check out *Angel Devoid*. Reviewed in MACFORMAT 37, it scored 84%. If you missed the review, turn to page 119 for details of how to get your hands on a copy.

Don't shoot!

'Arcade' sequences in adventure games are notoriously ropey. Most dedicated arcade games struggle to be original and entertaining, so why programmers should expect their 'random-shooting-bit-in-an-otherwise-plausible-game' to succeed is anyone's guess.

Spycraft is far from the worst example of this, though. The shooting bits at least work smoothly and if they're far too easy, that's at least better than the frustration of being held up by the 'too difficult' bits. In this example, your mission is to collect the radio beacon before the enemy snipers take you out (and we don't mean just for dinner either).

One of *Spycraft's* more arcade-style moments. Shoot your assailants as they leap out from behind rocks.

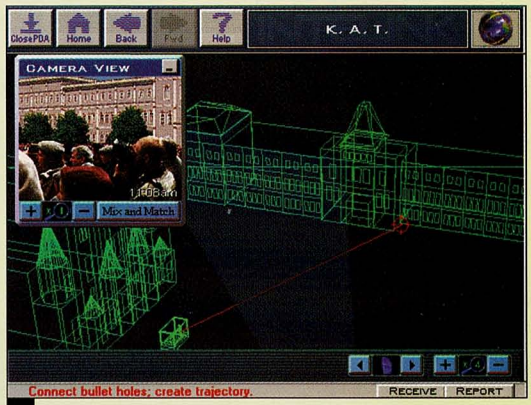
KNOWLEDGE IS POWER

Most adventure games have puzzles. These puzzles tend to be of the 'find object, collect object, use object in bizarre situation' type.

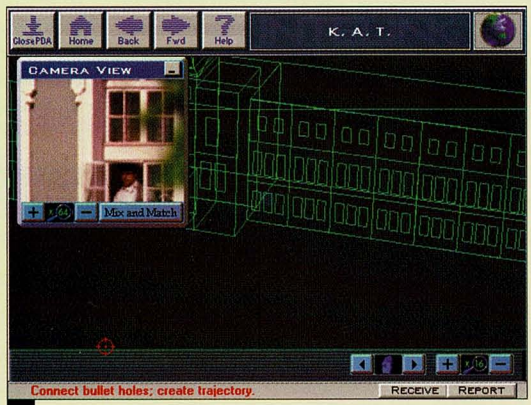
Spycraft is different. Rather than collect objects, the idea is to complete tasks to gather intelligence. This information can be garnered from a whole variety of sources, and subtle clues (such as your on-line news server) will help you to make the connections. It's only when you're armed with enough intelligence that you can deduce where to go and what to do next.

In this example, you've got to use the Kennedy Assassination Tool (a 3D computer modelling kit) to analyse some video footage. The Russian presidential candidate has been shot in Red Square and it's up to you to find out who did it.

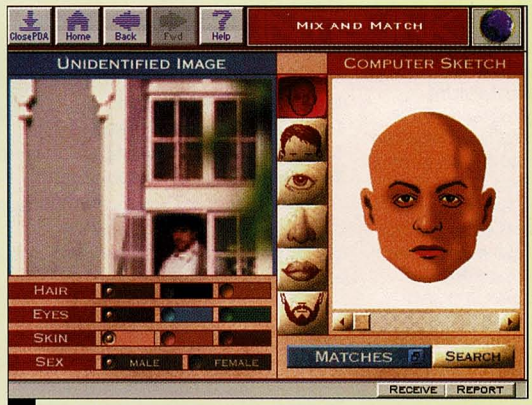
1 Cut down in his prime. Probably left a bit of a stubborn stain as well. But who, as they say in the Kremlin, dunnit?



2 Draw possible bullet trajectories using the computer model, tracing the line of fire back to find your potential assassin.



3 A likely suspect – it's Kevin Keegan! He must have thought the Russian President was Alex Ferguson.



4 Make use of the identification program to find out the name of your suspect. It is Kevin Keegan, though, wouldn't you say?

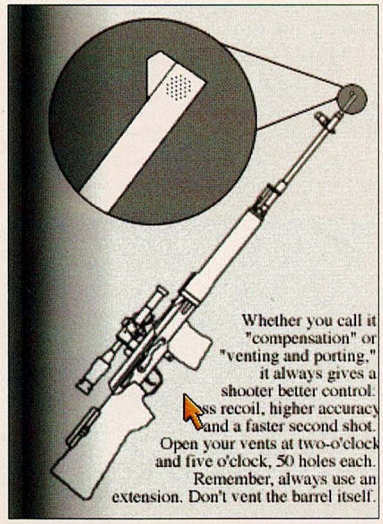
which can get boring very quickly. Not *Spycraft* – by actually having to use a computer within a computer game, this rather postmodern concept introduces some genuinely novel aspects (such as image analysis via Zoom and Enhancement functions). On top of this, there are also some (admittedly shaky) point-and-click arcade-style shooty bits.

The sheer size and all-encompassing nature of *Spycraft* might at first put you off (not least if you don't have a PowerMac). When playing the game, you get the feeling that if you don't pay attention 100% of the time, you're going to miss some vital clue – then you might die and the President might die and the world might end and, oh... stress!

This is, of course, a great strength in any piece of leisure software – if a computer game can made you care about its outcome, it's more than halfway to success. However, if it's a fluffy piece of after-work distraction you're after, *Spycraft* isn't the game for you. In fact, you might find you want to *go* to work after playing it, just for some light relaxation!

Needless to say, with all this full motion video and computer modelling trickery, *Spycraft* is only happy when it's got a lot of Mac to play with. The 'minimum requirements' box states that a 68040 Mac running at 33MHz will run the game with 8Mb of RAM and another 8Mb as Virtual Memory. This set-up on a Performa 630 (no slouch in the speed department) was shaky to say the least, consistently crashing at certain points. The performance wasn't impressive on a Power-Mac 6100/66 either.

Lots of fun will be had from *Spycraft*, even if it's only by those people with too much time on their hands and the patience to play a hugely in-depth adventure/simulator. The rumour that William Colby had gone AWOL to play it eventually proved false. Either that or the penalties for failure really are as harsh as they say. **MF**


Whether you call it "compensation" or "venting and porting," it always gives a shooter better control: less recoil, higher accuracy and a faster second shot. Open your vents at two-o'clock and five o'clock, 50 holes each. Remember, always use an extension. Don't vent the barrel itself.

Leafing through one of your boss's books you find this. Could be useful...

SPYCRAFT

Price: £49.99. **Out:** This month.
Requires: Quadra or better, 8Mb of free RAM and 8Mb Virtual Memory (16Mb real RAM recommended), System 7.5.1 or later, 1,000's of colours, 13-inch monitor, double-speed CD-ROM drive.
Optional Online Component: 14,400bps connection to Internet, Web browser, additional 3Mb of RAM.
Contact: Activision on 0181 742 9400.

GRAPHICS 90%
A largely seamless mix of video clips, semi-arcade sequences and graphical puzzles. Technically superb.

SOUND 88%
Good lip/speech synchronisation and some excellent sound effects.

GAMEPLAY 81%
Extremely varied. A good mix of arcade action and difficult puzzles, although everything can get extremely confusing.

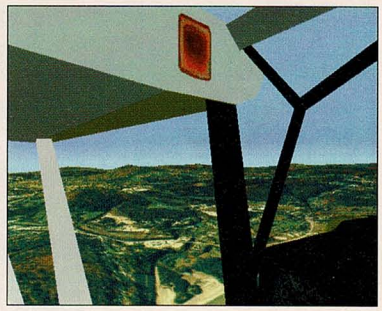
MACFORMAT RATING 84%

SEX, DRUGS AND VIOLENCE

Ever mindful of taste and decency, Activision has included the option to lock younger players out from scenes of graphic violence. Although this is laudable, the system employed is hardly foolproof and any child capable of playing the game would find it a simple matter to restart the game and get access to the gory bits.

Flight Unlimited

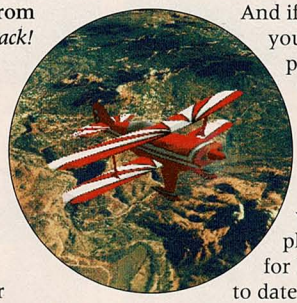
Have you got what it takes to pilot a variety of aircraft through the gorgeous landscapes of this latest flight sim? Jim Chandler prepares for take off...



On a clear day you can see forever. Just don't throw your dog-ends out of the window.

Take to the skies with the demo of *Flight Unlimited* on the Cover CD!

You know the main problem with flight sims? The scenery. Take a look at the world as seen from *F/A-18 Hornet* or *A-10 Attack!* It all looks like it was designed by an origami fanatic. Mountains that poke up from completely flat ground, rivers and roads that carry on in a straight line for miles before suddenly kinking, and towns smaller than your average hamlet, consisting of about four houses and a crossroads.



Flight Unlimited sets out to change all that. The ground details are generated from aerial photographs and the sounds are sampled from real aircraft. Which aircraft? Well, in a departure from the sim norm, the planes in *Flight Unlimited* don't have head-up displays, bombs, or guns. Instead, they're aerobatic thoroughbreds, designed for you to throw around in nauseating manoeuvres.

The game includes five aircraft, from the relatively docile Decathlon, through the legendary Pitts Special, to the astonishingly agile Sukhoi SU-31. And if you're a real masochist you can even choose to pilot a glider. You select your plane at the FBO (short for Fixed Base Operation; what we in the UK would generally call a flying club). Once you've chosen your plane, you're responsible for keeping your logbook up to date, while taking flying and aerobatics lessons with an instructor. You can select a timed course and even transfer to one of four other airfields if you fancy a change of scenery.

And what scenery. As you fly (or glide), the ground beneath unfolds as rolling hills and valleys, all texture-mapped with fields, woods, rivers, roads and towns. The sky fades into the misty distance, the sun flares through the perspex of your cockpit canopy, and wispy clouds recede to the horizon. If you take one of the optional exterior views, you'll even see the sun glint off your wings and your propeller blur the air in front. The graphics are the best you've ever seen on a personal computer flight simulator, bar none, and realistic sounds also add to your experience. Your engine drones in the background (unless you're in the cockpit of the glider, of course), and during more extreme manoeuvres, the aircraft whistles in the airflow or creaks ominously under high G-loads. During the lessons, your instructor calmly talks you through each manoeuvre.

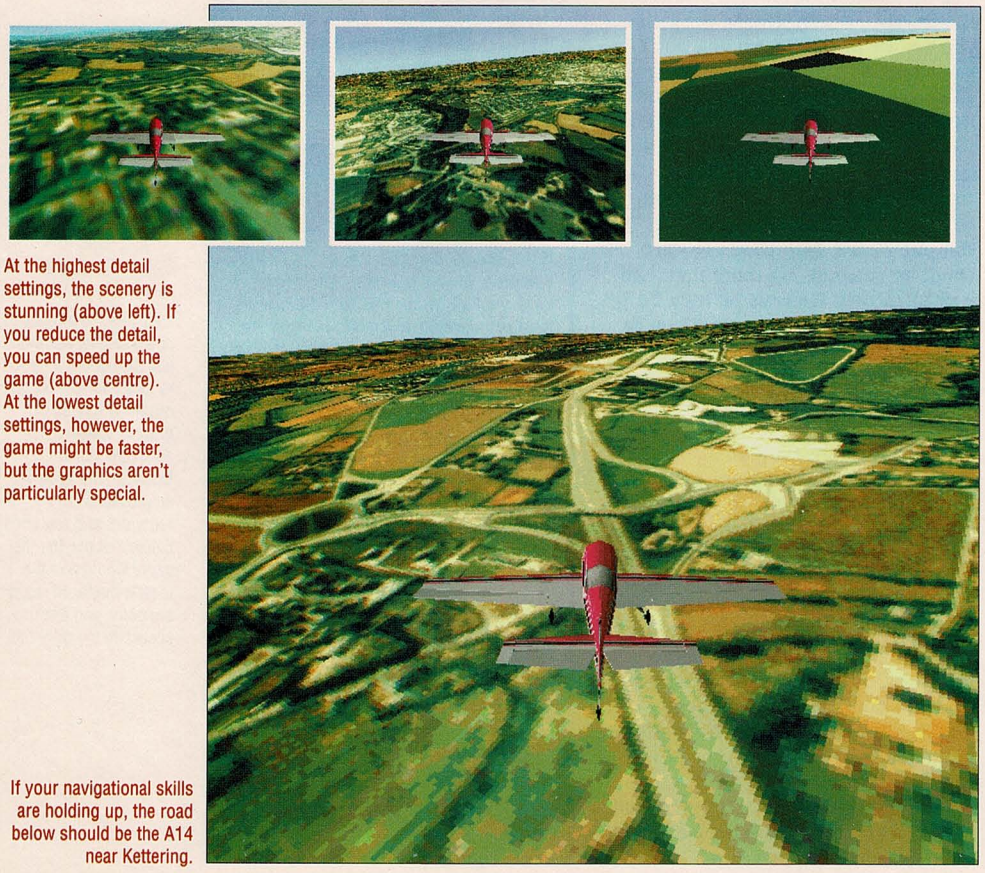
The sun flares through the perspex of your cockpit canopy, and wispy clouds recede to the horizon.

The quality of the simulation doesn't just extend to the graphics though. While most simulations use a set of generalised equations to determine how a plane handles, *Flight Unlimited* goes one better and actually uses physics to model the flow of air over your plane. This adds nice touches, such as engine torque effects, which work just as they would on a real plane. Unfortunately though, it also means that high speeds can tear your plane apart... The generally excellent *A-10 Attack!* employs a similar physics engine, but not nearly to such good effect.

Flight Unlimited isn't just for sightseers, though. The game is an aerobatics simulator, and as well as choosing a garish machine to play with, you can also take lessons in general aircraft handling and

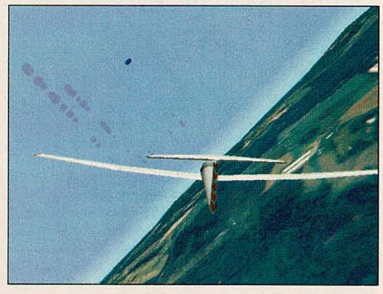
DOUBLE VISION

The scenery in *Flight Unlimited* was generated using stereographs – aerial photographs consisting of two pictures taken using a camera with two lenses a few inches apart. The two images were scanned and the differences between them used to work out the height of the scenery.



At the highest detail settings, the scenery is stunning (above left). If you reduce the detail, you can speed up the game (above centre). At the lowest detail settings, however, the game might be faster, but the graphics aren't particularly special.

If your navigational skills are holding up, the road below should be the A14 near Kettering.



The glider provides you with a welcome change of pace. The purple blobs in the distance guide you to essential columns of rising air (thermals).

Pull too many Gs and your plane can disintegrate around you! (above left). If you crash – and you will – bits of your plane roll and bounce downhill in what's probably a highly realistic manner (above right).

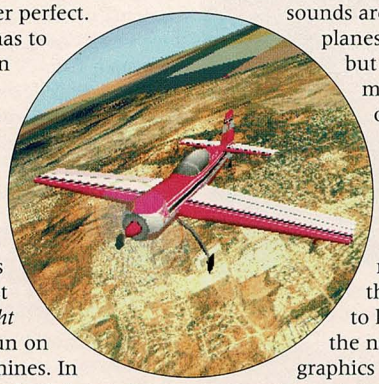
The Decathlon is a good stable aircraft to start your training in.

aerobatics. The lessons are well presented, with notes available as you fly and a cool instructor ready to talk you through your every move. When you've got all those manoeuvres down pat, you can try some of the hoops courses, in which you must fly through a series of floating rings. To cap it all, you have the facility to record your flights, and play back the best of them to the naked adulation of your friends.

To cap it all, you can record your flights, and play back the best of them to the naked adulation of your friends.

But, nothing is ever perfect. Sadly, there always has to be a downside, and in the case of *Flight Unlimited* it comes in two parts. First, all this high-resolution, texture-mapped scenery, sampled sound, and realistic physics model means that you'll need a fast Mac. For a start, *Flight Unlimited* will only run on PowerPC-based machines. In fact, the recommended minimum is a PowerPC running at 80MHz, so that means at least a 7100. If you try playing on a slower machine, everything gets very jerky. You do have the option to turn down all the scenery settings, which helps speed things up a bit, but this means you lose most of the point of the game. *Flight Unlimited* also needs a double-speed CD-ROM player, since the scenery data is far too big to store on your hard disk.

The second problem is far more serious: it's dull. Yep, the graphics and sounds are beautiful. Yep, the planes handle smoothly, but for any but the most aerobatically-obsessed, there really isn't much of lasting interest in the game. Apart from wanting to do that perfect snap roll or hammerhead, there's little incentive to keep playing once the novelty of the graphics has worn off. You can't even use *Flight Unlimited* as a general aviation flight simulator – the airfields are too far apart to enable you to fly between them and your plane isn't even equipped with a compass, so practising your navigation skills is out of the question. This is a shame, because a similar sim with radios, navigation aids and less exotic aircraft could well give even the best aviation sims a run for their money. **MF**

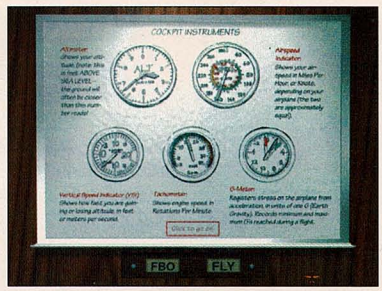


The modern German-built Extra's exceptional handling enables you to perfect your aerobatics before trying out a trickier aircraft.

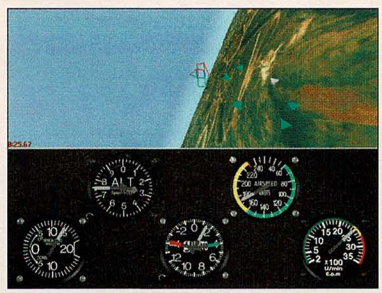
A nice effect, this. The sun flares through your cockpit canopy, causing these little rings of light. Very *Babylon 5*. Where did I put my Raybans?

This is your base – the FBO. From here you can choose the plane you want to fly, go to other airfields for a change of scene, book lessons and gag at the appalling lime green wallpaper

Before you start a lesson, you can get a briefing from your instructor.



You can set up a view that enables you to see forwards and to both sides, as well as including your instruments.



Once you've got your aircraft handling skills sorted, you can fly through these hoops against the clock.

FLIGHT UNLIMITED

Price: £49.99. **Out:** now.
Requires: PowerMac 7100 or better, 8Mb of RAM, System 7.5 or later, double speed CD-ROM drive.
Contact: Virgin Interactive Entertainment on 0171 368 2255.

GRAPHICS 97%
Absolutely superb.

SOUND 92%
Lovely samples of real planes.

GAMEPLAY 60%
Not a great deal of variety.

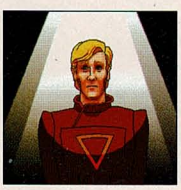
MACFORMAT RATING 76%

GREETINGS, COMRADE

The Sukhoi aircraft company that produces the SU-31 is better known for building Soviet fighter jets!

Space Quest 6 Roger Wilco in 'The Spinal Frontier'

Spaced-out cosmic adventure or just so much digital debris? Don your lycra uniform to boldly go where no-one has gone before – then decide if it was worth it.



Captain Roger Wilco, soon to be Janitor Roger Wilco.

SPACEHEAD

If you're a space junkie then check out *The Dig* or *Star Trek: A Final Unity* (MACFORMAT 38). If, however, you're looking for humour, grab a copy of *Day of the Tentacle* (MACFORMAT 35). If you missed these reviews, turn to page 119 for more details.

Acid-spewing aliens, jaw-clacking predators and the asthmatic wheezing of the Imperial forces – let's face it, you thought science fiction had faced its worst nightmares already. But you were wrong: the *Space Quest* series is back and it's more hideous than ever.

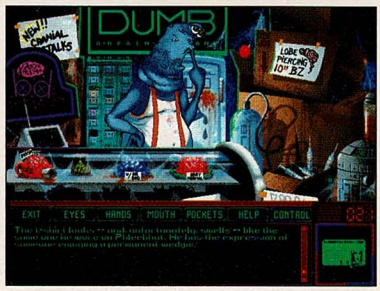
Like its predecessors, *Space Quest 6* is a funny space-bound adventure. 'Funny' as in 'ha ha', that is – or that's what it says on the box. Unfortunately though, while it may tickle the ribs of your average American, *Quest 6* is a stomach-churning affair for those of us that reside outside the state lines.

Ride the elevator in the bar for endless fun. Hey, it's more amusing than the game.

Relying heavily on American cultural references, 90% of the game's in-jokes, parodies and slang will soar over your head, and of the 10% that gets through... Well, let's just say you'll have more fun washing out your granny's incontinence pants.

Humour's a personal thing of course, but the jokes are definitely on the mundane side – a spaceship that looks like a pair of undies, *Carry On*-style innuendoes and poor puns. And unfortunately there's not much else to motivate you once you put aside the humour.

You play the hapless space-based janitor and sometime-hero Roger Wilco, as you explore the planet of Polysorbate LX and its inhabitants' inner organs. It's hard to tell why you're doing this. Not only does the game lack much in the way of overall direction, but at times you feel like you're being punished for trying to continue. Loss of points, frequent deaths and a condescending American-kitsch voiceover that sneers at your attempts to solve the puzzles aren't encouraging features. The music is lobe-curlingly poor too, with tinny bleeps and whining screeches passing for what should be a melody.

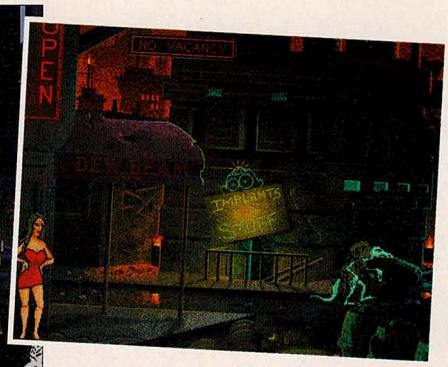


You have to question many citizens of the planet, but don't be surprised if they get snotty.

Gasp as an Arnie-style android turns you inside out, then cry as you get the chance to continue.

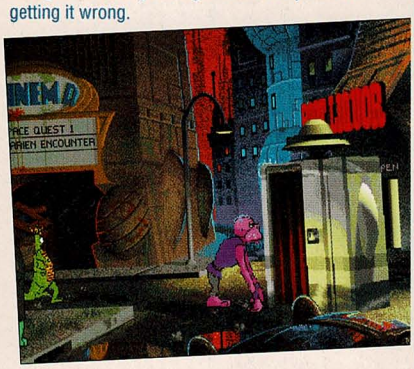
Still, *Space Quest 6* does have its good points. Well all right, its reasonable points. The puzzles you have to tackle are fairly solid, and the control system using eye, mouth and hand buttons is intuitive, if a little cumbersome at times. The sound recording is crisp and the cartoon graphics are pleasant enough in an old-fashioned sort of a way. The game even comes with a saucy little manual disguised as a janitor's trade mag, but that hardly makes it worth £35.

Over-priced, over-hyped and over here – *Space Quest 6* is another American invasion you simply don't need. And if you've got any sense you'll lock up your Mac now. KAREN LEVELL



You must become familiar with many settings, including some of the seedier parts of town.

Play with the valves to see which one the liquid nitrogen is flowing through – and lose points for getting it wrong.



The local inhabitants are a colourful breed, but beware of the photo booths – they bite.

Space Quest 6 is a game of exploration, puzzle-solving and far too many in-jokes, including this tribute to arcade beat-'em-ups like *Street Fighter II*.

SPACE QUEST 6

Price: around £35. **Out:** now.
Requires: Performa 475 or better, 8Mb of free RAM, System 7.1 or later, 256-colour monitor, double-speed CD-ROM drive.
Contact: Sierra on 01734 303322.

GRAPHICS 69%
Flat 1980s-style scenes with occasional 3D bits. Nothing special.

SOUND 49%
The crisp CD-quality sound only serves to highlight the irritating voiceover and loathsome tunes.

GAMEPLAY 52%
A standard adventure dragged down by by poor humour and a lack of overall motivation.

MACFORMAT RATING 51%

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Entomorph

Make sure you're comfortable, fire up the coffee percolator and withdraw to play this ugly and yet surprisingly addictive adventure for a few days...

The Mana Bolt and the Armour spells will see you safely through the first few stages of your quest.

Spell casting is simple and generally results in the death of your enemy. Your magic reserves recharge slowly, but fairly.

As the new BMW advert so conveniently explains, the effects of some items are greater than the sum of their parts. If the designers of *Entomorph* had thought of using this slogan before BMW, they would have (a) annoyed a large number of high powered Bavarians and (b) summed up the game perfectly.

Playing *Entomorph* is not an immediately rewarding experience. It's a third person role-playing adventure game set in the fantasy world of Aden – a plague-ridden land, populated by hordes of large hostile insects called jagtera, mutated by an unexpected and cataclysmic eclipse a decade ago. You take control of an irksomely named little chap called Squire Warrick, who's not been having a very good time of it lately. His home island has been invaded by these giant creepy crawlies and it's up to him to fight them off, before leaving the island to save the world. *Entomorph's* plot does not suffer from the kind of complexity that would present Iain M Banks with any competition.

Entomorph's execution makes up for this lack of imagination. Trotting around talking to people, trying to discover clues about what's been going on and searching for hidden places proves to be rather enjoyable. Although it starts off in a very linear fashion, the story soon branches out and provides that essential element of freedom. Despite the fact that all roads seem to end up in much the same place, it's fun travelling them.

• What do you know about those monsters?
• Where is my sister Sukanna?
• There's so much I can't remember
• What has happened here?
• I'm going to look around the rest of the island now.

The Booker Prize winning speech. Feel the pain and anguish as Squire inquires after his sister.

Save frequently to avoid having to sit through the dialogue when you die (which is not uncommon).

A large part of the enjoyment stems from the interface and control mechanism, which are simple but not simplistic. Navigating the world is just a matter of running the mouse around the screen; you then use the keyboard to perform most of the tasks wherever you end up. There are lots of irritating dead ends where you'll be forced to retrace your steps, but on the whole, the layout of Aden is well thought out; you're never left pointlessly trudging from one side of the map to the other just to locate one clue.

Apart from some of the clichéd dialogue, this is the closest *Entomorph* gets to offending you.

As you're walking, you'll venture upon all manner of creatures, from brightly coloured six-legged beasts (aarrgh!), to your parents (aarrgghh!). You use the keyboard to control your interaction with the characters you meet. This interaction tends to come in two distinct forms – either talking to whatever is in front of you or killing it. The dialogue is presented as text, displayed in a chopped up form in consecutive boxes, and is frequently cringingly clichéd. Half the time you'll skip on through it and then only afterwards realise there was probably some vital, and now irretrievable, nugget of information buried in there somewhere. On the whole though, the amount of text that you're presented with is about right and doesn't cripple the game, as is so often the case with other RPGs.

The combat is the most fun element of the game and it's the only time when *Entomorph's* pace rises above a steady – but satisfying – crawl. You fight mainly by using spells that tend to zip across the screen in a fairly dramatic fashion, or alternatively you can kick and punch your way to victory (or more often defeat). The steady collection of spells through the game, while you watch your power grow, proves to be *Entomorph's* most rewarding attribute.

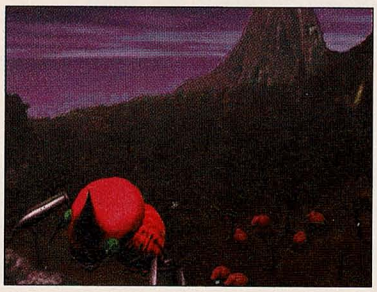
It's very hard to identify a single feature within *Entomorph* that makes it enjoyable or even addictive, but somehow the combination of all the average-at-best gameplay elements results in an extremely pleasant way to spend quite a few hours.

JAMES FLYNN

SPELL CASTING

You can memorise up to about three spells. Allocating them to the 'buttons' at the bottom of the screen means they can be cast quickly. It's best to have a low cost offensive spell, a shield and a high powered spell for emergencies at most times.

At the start of the game all you'll be doing is wandering around and looking inside huts. It hots up later though.



Entomorph's world contains a lot of flies. A couple arrive here at the end of the very pretty pre-rendered intro sequence.

ENTOMORPH

Price: £44.99. **Out:** now.
Requires: LC III or better, System 7, 8Mb of RAM, 25Mb of hard drive space, 256-colour monitor and a double speed CD-ROM drive.
Contact: Mindscape on 01444 246333.

GRAPHICS 63%
Purely functional. The computer graphics equivalent to a Skoda. You'll never fall in love with them but you'll never curse them for being slow either.

SOUND 55%
Warbling jungle music and the like. But thank heaven they didn't bother narrating all the speech.

GAMEPLAY 74%
Somehow manages to redeem the entire experience and actually proves quite compulsive later in the story.

MACFORMAT RATING 73%

Phantasmagoria

The horror, the terror, the gooey bits dripping with blood. How scared can you get, playing this big budget, small screen interactive movie?

The only thing scary about *Phantasmagoria* is the number of disturbing ironies it can hurl at you. Chief among them is the fact that its budget ran to several million dollars, but despite these huge monetary injections, it still couldn't be cured of so many of the symptoms suffered by similar attempts at interactive movie making.

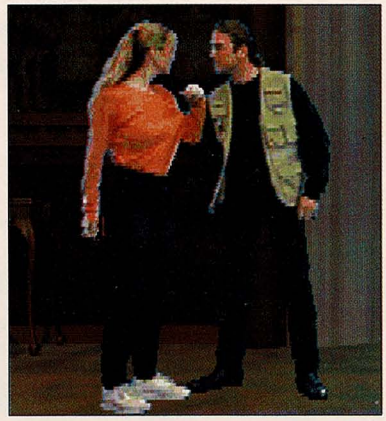
Although it has an awful video-plus-rendering intro, *Phantasmagoria* does, admittedly, look appealing. All the characters in it appear as video cut-outs in a splendidly moody rendered environment. The textures and details everywhere are immediately inviting and almost create a spooky, illusory atmosphere.

This is, however, undermined by three things. First, the sound is all wrong. The voices are always either too muffled or too tinny. You hear echoes when people are in small, cosy rooms or outdoors, yet noise fails to carry in the huge airy halls of the mansion where the game is set.

Second, all the digitised video characters have a great deal in common with your average vampire. This might sound scary, but it wasn't intentional – someone just forgot to give them shadows, so their feet rarely appear to be touching the ground.

Third, the video for most of the action is badly edited: there are vast pauses in the non-linear interactions, and far too much fidgeting and faffing goes on before and after anything is done by the characters. Basically, these three failings dash any possible suspension of disbelief, which, let's face it, is pretty essential in any horror production of this type or any other.

Meet Adrienne. She has to kill her mad husband *and* escape from a demon. This makes for one scared lady (and one tidy hairstyle).



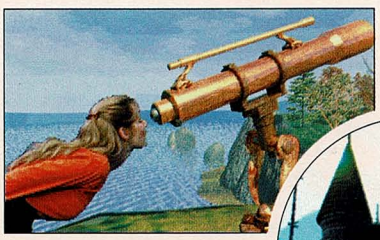
Don's fits of rage and violent sex are your proof that he's possessed. Then he tries to kill Adrienne.

Roberta Williams, the game's writer, has always been good at creating interesting plots, so it's surprising that *Phantasmagoria* never quite makes it. You start with the tale of Adrienne, who has recently moved into a huge house – home to a demonic evil force. The previous occupier was a mad illusionist, who – while possessed – killed off five wives. Adrienne, controlled by you, releases the evil, it possesses her husband Don and, yup, you guessed it... he then tries to kill her.

Although *Phantasmagoria* takes up seven CDs, your greatest moments of interaction come when you jockey the discs. Only a dozen objects are needed throughout the game, and there are about the same number of characters to meet. All conversations are strictly click-listen-click with no chance for input, and often you advance through the game not by solving puzzles but by just happening on the right location to trigger the next chapter. That's poor.

As for the blood, well, there is a fair bit of it – mainly during scenes of Carno, the illusionist, torturing his wives. Trouble is, though things get gross, it's all fairly ineffective as you never get to meet any of the characters involved. There's also one rough sex scene included. It's disturbing, but at the same time too fake to be really scary. The sex and violence can be turned off if you play in the censored, family viewing, mode.

Phantasmagoria had everything going for it. A big budget, a star game creator, reasonably good acting and expertly rendered scenery. Unfortunately, it wasn't blended into a game, so it's a very easy and passive affair. It picks up a bit at the end, but never manages to convince. **Garrick Webster**



One way to discover new rooms in the house is to view it through a telescope and count the windows. Beauty!

These two half-witted vagrants are shacked up in the barn. They prove to make good employees on the estate, until one of them throws up.

Outside the mansion is parked a BMW, which Adrienne can use to go to town. Just don't expect car chases or anything, okay?

18 certificate

Phantasmagoria received an 18-certificate from the British Board of Film Censors. It is, however, provided with a censored mode that enables you to play the game without the sex and violence.

Phantasmagoria

Price: £49.99. **Out:** now.
Requires: Quadra 630 or better (PowerMac recommended), 8Mb of RAM (16Mb for PowerMac), 30Mb hard disk space, System 7.1 or later, 256-colour monitor, double-speed CD-ROM drive.
Contact: Sierra on 01734 303322.

Graphics 78%
Splendid scenery – too bad the lack of shadows means the characters seem to hover within it. Badly edited video.

Sound 57%
Either muffled or tinny and all wrong for the spooky atmosphere the game tries to create. Good but repetitive music.

Gameplay 21%
Oops. Undemanding clicking, few characters to deal with, and it's all totally meaningless. An emphatic no.

MACFORMAT RATING 42%

Roberta Williams

Usually, Roberta's games are better than this. She wrote *Kings Quest VII*, for instance, which scored 80% in MACFORMAT 26. As a rule, she also provides good plots and some intricate, object-based puzzles.

The revenge

Phantasmagoria is selling rather well on the PC (shows what PC users know) and a sequel is planned. Shock!

Tried and tested

Everyone dreams of owning the latest, hottest, fastest Mac. But do you really need to splash out on the latest technology, asks MACFORMAT reader ST Dobbs.

Advice on the purchase of computers generally comes from either the enthusiast or the salesman. Neither is a really good advisor. 'Buy as much RAM as you are able'; 'Buy the fastest chip you can' – both are given as advice to try and insure yourself against future developments in the industry.

This advice, linked with your own tendency to buy only the best, leads to a purchase at the limit of your spending power – the latest, meanest, fastest Mac you can afford, even to the point of borrowing money to make that one last step up the scale of the Macintosh hierarchy. The problem is, of course, that within a year, that particular model will be outdated, yesterday's news, no longer supported, underpowered and, since suppliers still have it in the warehouse, cheap.

What have you gained from being at the cutting edge of the computer industry? You're broke for a start, and you're unable to use standard software thanks to problems of compatibility. In a couple of years' time, you'll be ready perhaps to upgrade (rather expensively), or sell up and buy the very latest model. This pattern keeps the computer industry in flux, fuelled by people's constant desire to have the most powerful model around.

You can see evidence of all the financially compromised individuals in the small ads in MACFORMAT, and who can blame them? 'Mac Classic, one loving owner, still under warranty, £600.' For an extra couple of hundred pounds, you can buy something approaching a Quadra, brand new.

Is speed of the essence?

What then is the point of paying through the nose for a powerful computer, when the price-to-power ratio is falling at a constant (and rather fast) rate? Buy cheap, slow and cheerful. Use System software that has been tested by all the mugs who bought it when first released. Be happy that previous versions of programs are just as much as you need, since you do not need to professionally edit massive QuickTime movies in real time.

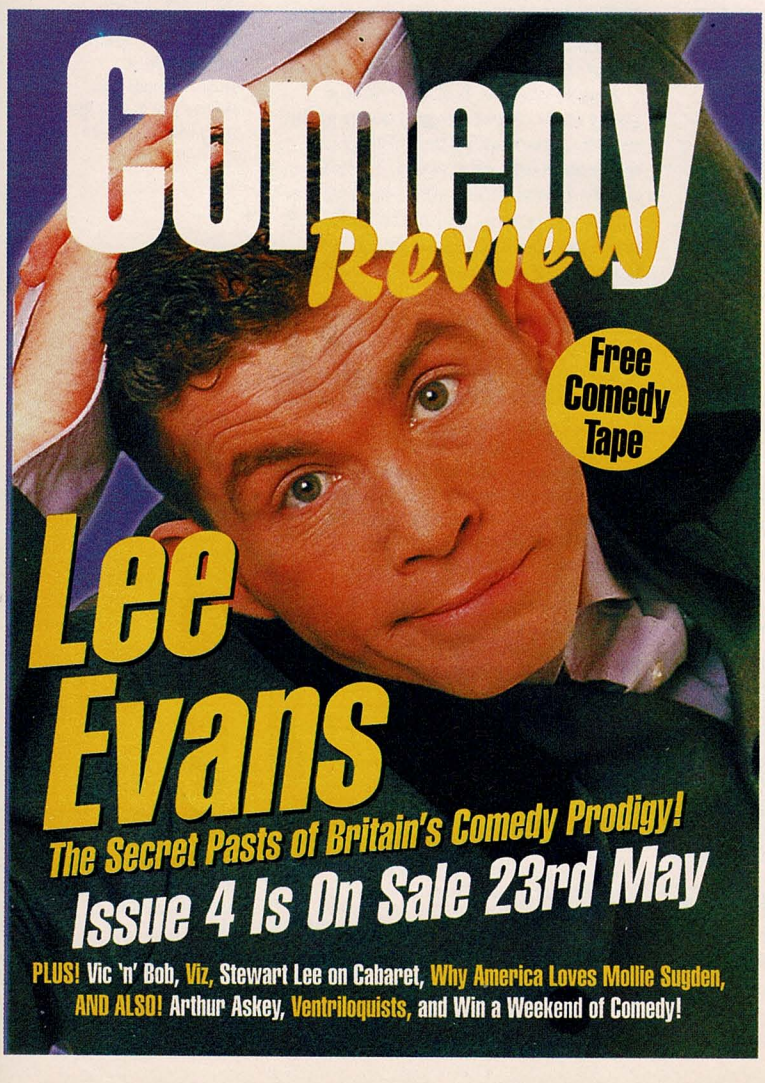
People laugh when I tell them I have an LCII. I assure you, three years ago it was a reasonable entry-level machine. So what? Entry-level? It does all the word processing I require and much more besides. The PowerMac at work scrolls text a bit faster but the difference won't kill me.

Indeed, I am positively beginning to rejoice in the aged nature of my Mac. How much quicker is *Word 6* than version 5.1? I am even considering reverting to version 4. Who needs 3D buttons, speech recognition, QuickDraw GX, stereo sound, infinite levels of toolbars and bloody QuickTime movies anyway?

My Mac still beats the pants off any PC in terms of the output that I can achieve with it, and it runs at 16MHz! Of course, if money is no object then buy that super-Mac, but any Macintosh from the original upwards is a very powerful computer that surpasses the wildest dreams of those enthusiasts of the '80s who bought simple Apple IIs or IBM machines.

Any Macintosh is still able to run System software with greater logical consistency than IBM clones, and any Macintosh is certainly more beautiful in its concept, implementation and actual design than all the other computers on the market. **ST DOBBS**

■ The opinions expressed on this page are those of the author, not necessarily those of MACFORMAT or Future Publishing Ltd. If you have something to say, then get it to us here at 'Talking Point', MACFORMAT, 30 Monmouth Street, Bath, BA1 2BW. ASCII text on disk would be nice, but isn't totally essential. We reserve the right to subedit your grammar but won't alter the sense of any opinions. **MF**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■ **Performa 630 8/350** CPU only, System 7.5.3 – £500 ono. Bristol ☎ 0117 932 8066 (after 7pm)

■ **LCII 12/80,** 14-inch monitor, mouse, keyboard, double-speed CD-ROM, PowerUser 44Mb drive and eight SyQuest cartridges – £850 ono. David ☎ 0171 836 9871

■ **LCII 10/160,** System 7.5, colour monitor, mouse, keyboard, includes *ClarisWorks, Photoshop, Illustrator, QuarkXPress* and more – £685. Jeff, Bristol ☎ 0117 939 6688

■ **Performa 450 8/120,** Apple colour monitor, keyboard, mouse and Hewlett Packard b&w printer with all connections and packaging – £600. ☎ 01472 750594

■ **4Mb RAM, 72-pin SIMM** (Kensington) – £65 including postage. ☎ 01472 750594

■ **Newton OS OS2** – £299; charging station – £25; fax/modem – £25; 1Mb card – £20; Connection kit – £20 or £350 the lot. Len ☎ 0181 393 9991

■ **88Mb SyQuest drive,** complete with five 88Mb disks – £200. Terry ☎ 0171 823 7566 (day)

■ **PowerMac 7200/90 16/500 CD** – £1,700; StyleWriter II – £100; SupraExpress FaxModem 28.8K – £130; *Norton Utilities 3.1* – £30; *ClarisWorks 4.0* – £40; *Claris Organiser* – £12; *RAM & Speed Doubler* – £30; *SoftWindows 2.0* – £130; *Colonization* – £20. ☎ 01703 786327

■ **Mac Plus,** fully upgraded 4/80, loads of software – £280 ono. Sammy ☎ 01483 274797

■ **SCSI hard disks,** 245Mb, Seagate, new – £90; Connor 500Mb new – £125 + p&p; DIMMs memory, 2 x 8Mb – £175 each; 2 x 16Mb – £275 each; 2 x 32Mb – £500 each; all new. Asif ☎ 0161 273 5704 or 0973 401336

■ **Quadra 610 8/160,** CD300i, CPU only mint, System disks, manuals – £700; some peripherals and software also available if required. David, Yorkshire ☎ 01757 700704 (eves)

■ **Mac IIcx 8/120,** keyboard, mouse, loads of software – £350; Apple multiscan monitor – £250; double-speed CD-ROM drive – £100; 2,400bps fax/modem – £20; AppleTalk kit – £10. ☎ 01689 811142 (after 6pm)

■ **Exabyte 2501 tape streamer,** as new – £50; PSI Comstation 5 fast 14,400bps modem – £50. Buyer pays postage or collects. ☎ 01924 250890

■ **Newton 120, OS 2.0,** 4Mb card, 2 NiCads, leather case, battery cradle, *Graffiti*, Newton connection and more. List price £963.50 – best offer secures. ☎ 01286 870729

■ **Colour Classic 8/40,** System 7.1, keyboard, mouse, manuals, boxed, home use only, excellent condition – £600. ☎ 01727 866384

■ **Powerbook 160 4/40,** System 7.1, in excellent condition, disks and manuals included – £550 ono. Chris ☎ 0151 727 1182

■ **Mac IIci 40/320,** System 7.1, 19-inch Pro-Nitron colour monitor, keyboard, mouse, 44Mb SyQuest drive, home use, good condition – £1,600 ono. Alan ☎ 01483 898093 (eves)

■ **LCIII 4/80,** keyboard, Performa Plus 14-inch monitor, mouse, StyleWriter II, home use – bargain £600. Tom, South Cambs ☎ 01763 260391 (eves)

■ **LCIII 8/80,** FPU, 14-inch high-res monitor, keyboard, mouse, CD-ROM – £750 ono. Keith ☎ 01322 669408 (after 7pm)

■ **Performa 400,** monitor, keyboard, mouse, StyleWriter printer, software, manuals, all packaging, excellent condition, light home use – £550 ono. Tunbridge Wells ☎ 01892 546316

■ **Quadra 840AV CD 8/500,** 2Mb VRAM, new extended keyboard, mouse – £1,500. With 17-inch Apple colour monitor – £1,900. Keith ☎ 0181 361 3074 (eves) 0171 436 1330 (day)

■ **LCII 8/80,** colour monitor, keyboard, mouse, System 7.5.1, *Photoshop, QuarkXPress*, loads of DTP and other software, excellent condition – £600. Thomas ☎ 01539 536654

■ **Plain Talk microphone** – £18 ono. Matther ☎ 01624 833133

■ **Visioneer Paperport** (1995 version) – £100; Performa 14-inch colour monitor – £100. Complete with leads and original software/manuals, possible swaps. Chris ☎ 01442 871235/866953

■ **Performa 460 8/160,** 14-inch colour monitor, design keyboard and ADB mouse 2, 200Mb SyQuest with 1 cartridge, quad-speed CD-ROM, stereo speakers – reasonable offers considered. ☎ 01709 585703

■ **CD-ROM** (NEC external), double-speed, 6 months old, includes software, SCSI cable and terminator etc, works with all Macs from LC upwards – absolute bargain £70. Philip ☎ 01829 782559

■ **LC475 12/160,** new design keyboard and mouse 2, 15-inch Mirror monitor, System disks, manuals, *Soft PC* – £720 ono. ☎ 01225 862506

■ **Radius Thunder Cards** 30/1152 for PCI, brand new, but incompatible with my Media 100 hardware – £775 (two). Haslemere, Surrey ☎ 01428 656178.

■ **PowerBook 520c 8/160,** like new, boxed, manuals, mouse, ethernet adaptor, HP310 colour printer, sheet feeder, can deliver – offers. Steve ☎ 01759 372926.

■ **LaserWriter 300,** excellent condition – £350 ono; Microtex colour/greyscale 300dpi scanner inc software – £350; ImageWriter II – £150. ☎ 01253 391976

■ **Performa 6200** PowerMac CD 24/500, 603 processor, 75MHz, 15-inch Multiscan monitor, keyboard, mouse, System 7.5, 7 months old, boxed, little used – £1,200 ono. R Benson, N Lancs ☎ 01524 733908

■ **LC 8/40,** colour monitor, *RAM Doubler*, CD-ROM external 150, ImageWriter II, reams of paper, all

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USER GROUPS

Need hands-on help with a Mac problem? Want to swap shareware or freeware, or just meet other Macintosh enthusiasts? Then why not try and find a user group near you.

■ Media Club – the best Portuguese Mac user group. Free on-line help via Telnet International. Please send SAE to Media Apartado 15006-1073, Lisboa, Codex, Portugal. (MF39)

■ Australia Queensland Toowoomra Mac user group. 202 Darling Street, Drayton, Toowoomra, Queensland, Australia 4350 or ☎ 61 076 333383 or fax 61 076 333383 (MF39)

■ Appel Club Eindhoven (ACE), 80 members, informal set-up, ten meetings a year, fee Dfl 25/yr. Contact Arie Nagel, Puthof 5, 5655 AM Eindhoven, Netherlands ☎ 040 2523879 or e-mail **a.p.nagel@tm.tue.nl** (MF40)

■ New Mac user group, Helensburgh, Strathclyde. Peter Stevens ☎ 01436 676621 (MF40)

■ Mac User Oxford – non-profit user group and shareware library, seasonal shareware catalogue, small fee for printing etc. SSAE: 30 Sandfield Road, Headington, Oxford, OX3 7RJ. (MF 41)

■ Hampton Court Users Group. Informal group which meets approximately every six weeks to exchange ideas and help each other. ☎ 0181 399 9416 or 0181 940 0673 (MF 42)

■ Artists archive and news service. Contact The Research Station ☎ 0181 778 6547 (24hrs) 38,400bps plus Web site at **http.www.metamute.co.uk/r_station** (MF43)

Groups are listed here for six issues. The code at the end of the entry is the last issue in which it will appear. Renew your entry by sending in the coupon on page 129. If your group isn't already listed here, send us your details and we'll do the rest. This is a free service for amateur, non-profit-making Mac user groups. MACFORMAT does not endorse or recommend any group and cannot be held responsible for any problems you might suffer as a result of contacting any of the groups advertised here.

cables, System 7.01 – £600 ono secures. Peter ☎ 01577 863509

■ **PowerBook Duo 230 4/40,** complete with carry case, full DuoDock, keyboard and mouse – £650; FWB Hammer 200Mb external drive, VGC – £100. Richard ☎ 01480 300409

■ **Apple Personal Laser Writer 300,** light home use – only £350. ☎ 01225 445383

■ **Newton,** excellent condition, cradle charger, 2 battery packs, battery booster pack, 1Mb storage, 2 adaptors, modem – £350 ono. ☎ 01904 632833

■ **Duo 210 laptop 4/80,** System 7.5, *RAM Doubler, Claris 3* and a bag, needs new keyboard, otherwise full working condition – £300; PowerBook 520 4/240, trackpad, System 7.5, carrycase – £850 or swap/part exchange for Performa 5200/5300. Robert ☎ 01224 635173

■ **PowerBook 165,** 4Mb RAM, System 7.5.1, lots of extra software, carrycase, SCSI lead, monitor lead – £850. Cromer ☎ 01263 512605

■ **LCII 4/40,** 12-inch Apple colour monitor – £450 ono. ☎ 0113 2748377.

■ **LC475 8/160,** standard keyboard, Performa Plus 14-inch monitor and mouse, StyleWriter II, *MacWrite* software, desk and chair also available – £650. Oliver ☎ 0181 679 4963.

■ **Mac SE 4/40,** System 7.5, mint condition, keyboard, mouse, cables, lots of software, house purchase forces sale – £295 ono. West Yorkshire ☎ 01924 822057 (eves)

■ **PowerBook 520c 24/420,** PowerPC upgrade, System 7.5.2, colour – £2,000 ono; selection of software, six months old; **Performa 630 20/250,** Apple 15-inch Multiscan monitor, System 7.1, keyboard, mouse, 9 months old Mark ☎ 01504 398878 (after 6pm)

■ **5 SyQuest 270Mb cartridges** – £35 each; *Typist* and scanner, 256-greyscale, plus new software – £90. ☎ 0181 540 1052

■ **PowerBook 140 6/40 (25MHz),** System 7.5, plus software, includes Apple carrier case, leads and charger, bargain – £595 ono for quick sale. Rory ☎ 0181 567 1132

■ **PowerMac 7200/90 CD,** 16Mb RAM, 15-inch Trinitron monitor, Geopod, loaded with software, boxed, as new – £1,500. Simon, Hampshire ☎ 01256 848485 (work), 01252 624250 (home)

■ **Apple IIe,** monitor, keyboard, mouse, manuals; Apple III, monitor, keyboard, mouse, manuals; Image Writer, daisy wheel – offers. Bernard ☎ 01737 353828

■ **Hewlett Packard HP560C colour printer** and Formac Prodrive SyQuest drive – £150 each ono. Stephen, Reading ☎ 01734 323566

■ **PowerBook Duo 230 4/120,** Duo Dock, plus 240Mb HD, 512K VRAM, FPU, both 6 months old – £600. Adrian ☎ 0171 931 0147

■ **LC475 8/160,** 14-inch monitor, keyboard, mouse, software – £740. Tim, Manchester ☎ 01625 261022

■ **Apple external CD player 300e,** SCSI cable, terminator – £120. ☎ 01793 872282

■ **LCII 4/40,** 12-inch colour monitor, Apple CD 300, StyleWriter, System 7.1, software including *MS Works, Atlas, Grolier, KidPix* – £450 ono. Hitchin ☎ 01462 456843.

■ **4Mb, 72-pin SIMM** – £50; wanted Apple 300i CD-ROM drive. Paul ☎ 01604 402891

■ **PowerMac 8100/80 16/500 CD,** fax, plus software, as new – £1950. ☎ 01392 77474

■ **Performa 400,** boxed complete with manuals, StyleWriter, 14-inch monitor, software, *RAM Doubler* and 6 games – £650 ono. ☎ 01302 771072 (eves)

■ **Performa 450,** StyleWriter II printer, keyboard, mouse, *ClarisWorks,* 14-inch Performa monitor, excellent condition – £575 ono. Roy ☎ 01442 254320

■ **LC 10/40 100Mb HD,** 13-inch Apple monitor, keyboard, mouse, all cables and software, HP DeskWriter, all as new – £650 ono. Suffolk ☎ 01449 781724

■ **PowerBook 165C 14/120,** 14,400bps InforMac modem, 2 batteries, new *Power Load* Apple BDS software, excellent condition – offers. Graham ☎ 01923 821520 (eves)

■ **PowerBook 165C,** breaking for spares, all parts for sale, screen, case, trackball, kitchen sink – save £'s on Apples replacement prices. Ben ☎ 01460 62972

■ **Classic II 4/80,** manuals, mags, lots of software, 100% working, excellent condition, standard keyboard and mouse – £325 inclusive. Yeovil ☎ 01935 25974

■ Formac Pro Nitron **24bit (1,024 x 768) NuBus card,** 80MHz output, originally from Quadra 700 – offers please, will consider swaps, not expecting high price. ☎ 01935 25974.

■ **16Mb 168-pin DIMM** – £260; 8Mb 72-pin SIMM – £120; 4Mb 72-pin SIMM – £60; Duo 230 4/80, no battery – £295, working VGC. Nottingham ☎ 0115 985 5151

■ **Mac LCIII 4/500** CPU only, System 7.1 – £350. Darren ☎ 01284 766175

■ **Quadra 660AV 8/120** *RAM Doubler,* various software, keyboard, 14-inch AV monitor, various CDs & games, hardly used – £1,250. ☎ 01482 348253

■ **PowerMac 5200 75/850,** remote con TV/CD/Fax/Modem, colour StyleWriter 2400 (package), 3 months old, loads of high powered creative software *RAM* and *Speed Doubler* – first £1,650 secures. George, Scotland ☎ 01896 870610

■ **Performa 450 8/120,** CD-ROM 300e, HP colour printer, *ClarisWorks, Pagemaker, PGA Golf, FineArtist,* home use only. ☎ 01909 771275

■ **LC475 8/80,** 33MHz, 160Mb hard disk, CD300, monitor, keyboard, mouse, all boxed – offers please. Birmingham ☎ 0121 454 1867 (eves)

■ Lacie **85Mb external hard disk,** complete with manual, SCSI cable, power cable, original packaging – £85. Kent ☎ 01795 422825 (eves)

■ **Performa 6200 8/500CD,** CPU only, 3 months old, on-site warranty, extra software, System 7.5.1, worth £1,000 plus – £950 ono. ☎ 0181 5752733 (eves), 0831 871050 (days)

■ **Performa 450 6/520** hard drive, external CD-ROM, 14-inch colour monitor, HP 600dpi colour printer, mouse, keyboard etc, bought for £1,905 – best offer over £750. Nick ☎ 01737 812187

■ **Performa 460 8/160,** 33MHz processor, 14-inch monitor, keyboard, mouse, loads of software, Internet ready (modem needed), excellent condition – £900. ☎ 0116 2715538 (after 6pm)

■ **Centris 610,** 14-inch Apple colour monitor, keyboard etc, also StyleWriter printer, excellent condition, lots of software, may sell separately – £1,400. ☎ or fax 0171 730 8081

■ **US Robotics 14.4k Sportster Mac & Fax,** as new, boxed – £85 + postage. John ☎ 0113 2390880

■ **Logitech Scanman** hand scanner, complete with software, light home use only – £75 ono or swap for *Color It! 3.0.4* or *Photoshop LE.* ☎ 01729 830547

■ **Duo 280 12/200,** internal modem, boxed, excellent condition, all manuals, lots of software – £975. ☎ 01922 616969

■ Inkjet printer, **Hewlett Packard DeskWriter 510,** black and white, with occasional colour too, QuickDraw adaptor and packaging – only £80. Grimsby ☎ 01472 750594

■ **LCIII 4/80,** 14-inch colour monitor, keyboard, mouse, StyleWriter printer, excellent condition – £550 ono. Judith, Bristol ☎ 0117 971 7508

■ **LCII 10/160,** colour monitor, keyboard, mouse, System 7.5, *ClarisWorks 2.1, Word 5.1, FileMaker Pro 2.1, QuarkXPress 3.3, Photoshop 3.0.1, FreeHand 5.0.1, KeyCAD 1.0* – £685. Jeff, Bristol ☎ 0117 939 6688

■ **Logitec Scanman 2.2** hand held scanner, boxed, manual – £65; Performa 630 8/350, 15-inch Multiple scan monitor, built in CD player, light home use only, software ☎ 01506 883772

■ **SIMM 4Mb 72-pin,** 80NS, pulled from a brand new 5200 – £45. Tim, Telford ☎ 01973 305994 or 01952 291242 (daytime)

■ **Performa 460 4/160,** 14-inch monitor, keyboard, mouse, StyleWriter II, *ClarisWorks 2,* Performa bundled software, *Compuserve Internet kit,* excellent condition – £650. Birmingham ☎ 0116 4770582

■ **Classic II 4/40,** keyboard, mouse, excellent condition – £275 ono. Steven, Manchester ☎ 0161 904 0977.

■ **Performa 600CD 8/80,** 13-inch monitor, System 7.1, *RAM Doubler, ClarisWorks* VGC – £400 ono. Iain ☎ 01865 377294

■ **Mac Plus** with hard disk, moderate condition – offers; Macintosh laser printer IInt, PostScript, was £1,800 – offers. Matthew ☎ 01432 263595

■ **StyleWriter 1200,** 8 months old, light use only, as new, boxed, new ink cartridge – £75. Martin ☎ 01562 743655 or 0421 522392

■ **Mac IIsi 5/80** CPU only – £325. ☎ 01359 251636

■ **Mac IIcx 8/230,** keyboard and mouse – £350; Apple 15-inch multiscan monitor – £250; double-speed external CD-ROM – £100; 2,400bps fax/modem – £20; System 7 disks – £20. ☎ 01689 811142

■ **LCIII 4/80,** 14-inch colour monitor, keyboard, mouse, StyleWriter printer, software, manuals, nearly new – £550 ono. Judith, Bristol ☎ 0117 971 7508

■ **Apple 14-inch Trinitron monitor,** little used – offers. Frome ☎ 01373 830 901 (eves)

■ **PowerMac 6100/80 24/250 CD,** 256K cache, still under guarantee – £750 ono. ☎ 01548 550 266

■ **Logitech ScanMan 32** hand scanner, software, cables, manual, little used, excellent condition – £100. Peter, Bucks ☎ 01296 612807 or e-mail **100606.2214@compuserve.com**

■ **Mac Gravis Firebird joystick,** superb stick for serious gamers, as new, boxed, 3 months old – £65. Nick, South London ☎ 0181 677 3356

■ **44Mb SyQuest drive,** 2 cartridges, cables and software – £70. ☎ 0181 424 2922

■ **IIcx 4/20 internal hard drive,** CPU only, Ethernet card, *RAM Doubler,* can be seen working – £200 ono. ☎ 01268 779532

■ **PowerBook 520e 4/160,** System 7.5 – £950 ono; 8Mb of PB RAM – £195; 16Mb of PB RAM – £420; all guaranteed. ☎ 0181 348 8093

■ **NEC SilentWriter S62P,** PostScript Level 2 printer, 4Mb of RAM, boxed, manuals – £450 ono. John ☎ 0113 239 0880 (eves) or 0113 250 0701 (eves after 6pm)

■ **IIcx 8/80,** keyboard, mouse, 20-inch b&w monitor, b&w DeskWriter, b&w Logitech handheld scanner – £700. South Wales ☎ 01633 601613

SOFTWARE FOR SALE

■ ***Adobe Super ATM 3.9,*** with 40 free fonts, boxed, original packaging, unregistered – £30. ☎ 01252 713477

■ ***Avid Videoshop*** – £30; *Guinness Disc of Records* – £25; *Leonardo the Inventor* – £20; *Dinosaurs* – £20; *Rosetta Stone* – £25; *Benjamin Bunny* – £20. Paul ☎ 0161 773 3830

■ ***Wing Commander 3*** CD – £25; *Doom 2* – £20, both with original boxes and manuals, price includes postage. Duncan ☎ 01779 812873.

■ Unused ***Wing Commander 3*** and *Xplora 1, Peter Gabriel's Secret World* – £50 ono for both or £30 each.☎ 0131 660 5398 (eves)

■ ***Labyrinth of Time,*** *Theme Park, PowerPoker, PGA Tour Golf 2, Syndicate, Populous 2, Chuck Yeager's Air Combat, Powermonger,* all CD – £10 each. Lesley ☎ 0141 840 1641

■ ***FreeHand 5.5,*** unregistered, untouched – £275. ☎ 0181 674 7933

■ ***Marathon 2 CD*** – £25; *Marathon* – £15; *SimCity* 200 – £20; *Dark Forces* CD – £25; all with original disks, boxes and instructions. Nottingham ☎ 0115 952 5995

■ ***Microsoft Works 3,*** boxed with 5 original disks and all original manuals in perfect condition – £20 or swap for religious books. Robert ☎ 01224 635173

■ ***ClarisWorks 4.0,*** boxed, sealed, discs sealed, manual, unregistered – £80; CDs *Guinness Records 1994* – £8; *Rosetta Stone* – £5; *Benjamin Bunny* – £5. ☎ 0161 969 8864

■ ***Kai's Power Tools Vector Effects,*** unused – offers. Mike ☎ 01337 831172

■ ***SoftWindows 2.0*** for PowerMac on CD-ROM with manuals – £120 ono. ☎ 01624 833133

■ ***Full Throttle*** and *Dark Forces* as original – £22 ono inc p&p. ☎ 01789 292788

■ ***Photoshop 2.5,*** complete with manuals, disks – £125. ☎ 01438 714780 or 01992 500335

■ ***ClarisWorks 3,*** as new – £50 or offers. Tony ☎ 0117 907 9362

■ ***Microsoft Bookshelf*** and *Microsoft Art Gallery* for the Apple Mac – £10 each inc p&p. Matther ☎ 0181 523 8058 (daytime) or 0973 301882 (eves)

■ ***PageMaker 5.0*** – £150; *FreeHand 4.0* – £150; *Persuasion 2.0* – £35; *Photoshop 2.5LE* – £30; *Premier 3.0* – £165; all unregistered. ☎ 01234 301693

■ ***Claris Organiser,*** boxed, unopened, accelerated for PowerMac – offers. David ☎ 0113 2780691 (eves)

■ ***Photoshop 3.0,*** full version, sealed, unregistered package, unwanted bundle pack – £200. ☎ 0585 704183

■ ***Sherlock Holmes Consulting Detective vol 3,*** interactive video mystery, as new, still boxed – £20 or swap; also available *Darkseed, Monkey Island, Another World, Valkyrie, Deliverance, Rise of the Dragon* – £20 each or swap. ☎ 00 49 5241 37622 (after 5pm)

■ Various Mac software, 3 months old, boxed, as new, phone for excellent bargains. Will ☎ 01746 768846 or 0973 741765

■ ***Ray Dreams Dream Pack,*** all programs unregistered, manuals etc, all disks only used once, unwanted gift – £100. Dave, West Yorks ☎ 01535 646596

■ ***Microsoft FoxPro v2.5,*** boxed, complete, 3.5-inch disks – £80 ono or would consider part exchange for some combination of *ClarisWorks, RAM Doubler* or cash. John ☎ 01633 864672 (eves)

■ ***Itedo IsoDraw 2.6/3.0*** professional technical illustration software, complete boxed package, cost £2,000 – offers. Mark, Poole ☎ 01202 387759

■ CD-ROMS unused ***Chess II,*** *Pyramid Solitaire, Fonts 100, Crystal Quest, Checkers Deluxe, Diamonds, Video Poker, Sky Shadow* – £5 each, £30 all; also *Leonardo the Inventor, Guinness Records, Apollo Interactive, San Diego Zoo, Microsoft Dinosaurs, Ozzie's Forest* – £10 each, £50 all. Tim, Telford ☎ 0973 305994

■ The complete ***After Dark*** collection – £23; *Buried in Time* – £23. Matthew ☎ 01624 833133.

■ ***Symantec C++ v8.0 CD*** and Subscription CD two, all manuals – £100. ☎ (or fax)01737 645864

■ ***Suitcase 2.1.3,*** boxed, manual – £25; *Adobe SuperATM 3.4,* boxed, manual – £25; *Alysis Super Disc, In Control, On Location* – all 3 £15. ☎ 01506 883772

■ ***Illustrator,*** *Vector Effects, Power Tools* and many more bargains, Page Will ☎ 01426 221677 for prices and leave your name and number.

■ ***Avid Videoshop v3.02,*** Mac CD-ROM, unused, mint, still packaged, creative video/movie making application – offers around £70. ☎ 0114 267 1360 (after 6pm) or 0973 129892

■ ***StrataStudio Pro Blitz 1.75,*** sealed, as new, surplus to requirements – only £500. Ian Steele ☎ 0181 878 1095 (eves)

SWAP SHOP

■ **Mac SE30** outer case and internal chassis drive cages, analogue board with PSU fan LOPT etc – £40 or swap for SIMMs, modem. ☎ 01480 406415 (eves)

■ ***The Tale of Benjamin Bunny*** CD-ROM for any CD-ROM or other software to suit age 12 to adult. Gerry ☎ 01232 763858

■ ***Avid Videoshop 2.0*** CD for 3D, CAD, database. ☎ 0121 350 1927

■ ***SimCity 2000*** for *International Tennis Open* (disk) or *Syndicate.* Tom ☎ 01727 851914 (eves)

■ **MacUser issues 1-18,** *Mac Bible editions 1 – 4, Inside Macintosh* vol 6, user guides or photocopies for Apple 21-inch TPD mono-display and Mac IIsi. Chris ☎ 01905 29601

■ ***Alone in the Dark 2*** will swap for *Full Throttle* or *Sam and Max: hit the road,* CD only. ☎ 01353 669708.

■ ***Pathways into Darkness,*** will swap for *Chuck Yeager's Air Combat, Hellcats* or *Monkey Island 2.* All original disks and manuals.☎ 01622 842737

WANTED

■ Wanted **Newton 110** or Psion 3A Palmtop Organiser – £100 waiting. Jim ☎ 01343 842283

■ ***Civilization*** with box etc – will pay £25, *Chuck Yeager's Air Combat* – £20. Martin ☎ 01925 262005 (after 4pm)

■ **PowerMac 7100 CPU** only or preferably with monitor, keyboard, printer and extra memory – cash waiting. Andy ☎ 01633 613342

■ Wanted, **UK map for *Signpost.*** Willing to pay or swap for other map. ☎ 00 49 5241 37622 (after 5pm)

■ **Performa 630, 6200 or 5200,** minimum 8Mb, CD and monitor; also any children's software – cash waiting. ☎ 01291 623387 (eves) or 0117 975 1673 (day)

■ Reasonably priced **second-hand Mac** for North Devon cancer care charity to produce letters, leaflets etc. ☎ 01273 451464

■ Wanted, **laser printer A4-A3,** Mac compatible, 600dpi, monochrome, at least 4Mb memory, software and in excellent condition. ☎ 01243 862592

■ **Colourvette** sought by ambitious learner driver. Kim ☎ 0131 229 4663

■ **14-inch colour monitor** for desperate 10-year-old boy who wants to play games. Michael ☎ 0131 337 2767 (before 9pm)

■ **MACFORMAT issue 29** magazine complete with CD-ROM only, must be in excellent condition – will pay £10 to include postage and packing. ☎ 01902 893097 (after 6pm)

■ A set of **System 7.5 disks** for a PowerMac 7100/80; 256k cache level 2 for PowerMac 7100/80. ☎ 0181 540 1052

■ ***SimCity 2000*** (floppy), *Home Publisher* (floppy), *Apple Max Zoom.* ☎ 01279 812780

■ CD-ROM version of ***The Dead Sea Scrolls.*** Robert ☎ 01224 635173

■ Need ***Mac Terminal*** **on 400k disks to run on Apple Lisa 2** (remember that?) with Mac emulation software. Must be ever so cheap. John ☎ 01705 832145

■ **PowerPrint cable** without software. Ian ☎ 0181 748 1944 (eve)

BOOKS AND MAGAZINES

■ **Apple Mac magazine CD-ROMs** – £1 each or £7 for 10 inc p&p. Matthew ☎ 0181 523 8058 or 0973 301882 (mobile)

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Local user groups:

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■ Blackburn Mac UG, Roger Moreton ☎ 01254 670043
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■ Bristol (BAUD), Malcolm Ingsley ☎ 01454 616846
■ Cambridge Apple UG, Ian Archibald ☎ 01223 311157
■ Cancer Research/RMH UG, Raymond Henry ☎ 0181 643 8901 ext 4636
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Buying advice

Whether you're buying by mail or in person, here are a few basic, sensible precautions to bear in mind. Note that everything here applies to buying from a business; most of it does *not* apply to buying from a private seller in MACFORMAT's reader ads pages.

Always be absolutely clear about what is included in the price – postage and packing? Any necessary cables, etc? VAT? By law, an advert must say *explicitly* if VAT is not included; if it doesn't, VAT *is* included. But this could be in the small print – so make sure you read it all! If you're buying in person, check that everything is there and that it all works properly before you leave the shop. If you're buying by mail, ring the supplier first to confirm the price and availability, and ask what your options will be if there should be any problem. Find out when you can realistically expect delivery. Always keep all the receipts and make records of all correspondence, whether it's by mail or by phone.

How to protect yourself

If you are buying goods of more than £100 in total value, use a credit card if possible. That way, if anything goes wrong, you'll be legally entitled to claim against the credit card company as well as the seller, even if the seller's gone bust. You might also get extra insurance – ask your credit card company.

If you don't have a credit card, pay by cheque or postal order (ask at your local post office). Never send cash through the mail – it can't be traced if it gets lost, you can't stop payment, and even if you have proof of posting, you can't prove how much you sent.

Keep records. If you're paying by credit card, keep a note of the exact time of the order and ask for an order number. If you're paying by cheque, make sure you fill in the details of the date, amount and payee's exact name on the stub – and keep it!

When a mail order arrives

Check everything carefully. If anything is missing, contact the supplier immediately. If something doesn't work, make all the obvious checks (the fuse, etc), but don't try to repair it. If there's anything you're not happy with, don't use it – if you do, you could be deemed to have accepted it.

If there's a problem

Whether you bought it by mail or in a shop, the law says a product must be:

1. 'of merchantable quality' (that is, broadly speaking, it must actually work);
2. 'as described' (in the advert or in person – and this criterion also applies when you're buying from a private seller); and
3. fit for the purpose for which it was sold or for the purpose you specified when you ordered it.

If it fails to meet any or all of these three criteria, then you are entitled to return the goods for a refund, receive compensation for all or part of the value, or get a replacement or free repair, depending on the seriousness of the defect. These are the 'statutory rights' that adverts always say are 'not affected' by any extra guarantees. The supplier cannot change or deny these rights.

How to complain

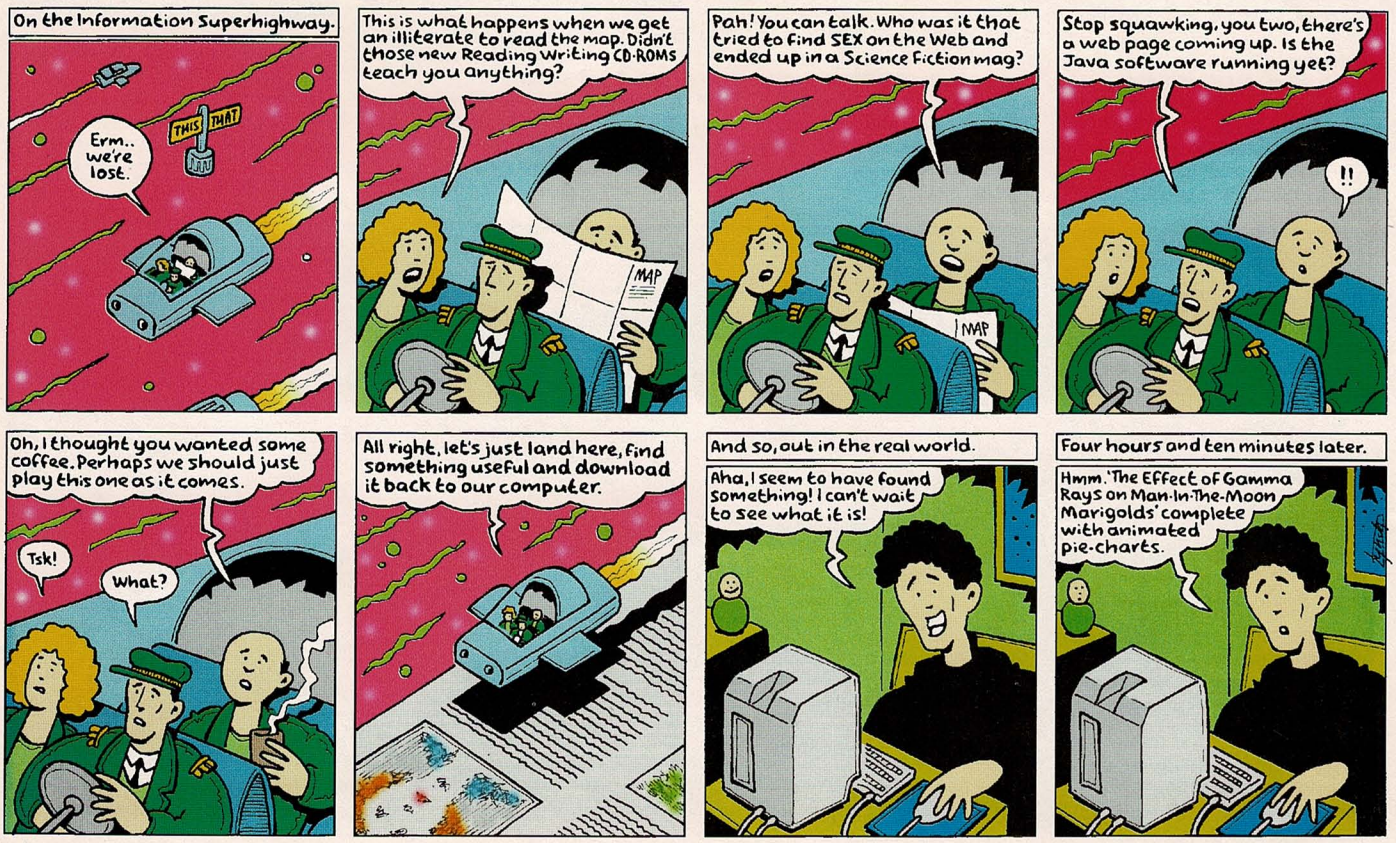
If you're not happy about something, always contact the supplier first and politely explain your problem. Most problems are sorted out at this stage with no fuss. But if yours isn't, put your complaint in writing, clearly stating your problem and including any relevant dates, etc, and send it to the manager or owner – ask for the correct name and job title. Give the supplier a reasonable time to reply – say, ten days or so.

If the problem is still not resolved, you may need to take some sort of legal action to enforce your rights. This need not cost you a lot of money. You should seek advice from a solicitor (ask about the free advice scheme) or from one of the following organisations (check in your local telephone directory):

- Citizen's Advice Bureau;
- Trading Standards Office (listed under your local council);
- Office of Fair Trading; or
- County Court (ask someone there about the 'small claims procedure').

The Classic System Crew

By Bob Lynch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THAT
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MAP
Pah! You can talk. Who was it that tried to find SEX on the Web and ended up in a Science Fiction mag?
MAP
Stop squawking, you two, there's a web page coming up. Is the Java software running yet?
!!
Oh, I thought you wanted some coffee. Perhaps we should just play this one as it comes.
Tsk!
What?
All right, let's just land here, find something useful and download it back to our computer.
And so, out in the real world.
Aha, I seem to have found something! I can't wait to see what it is!
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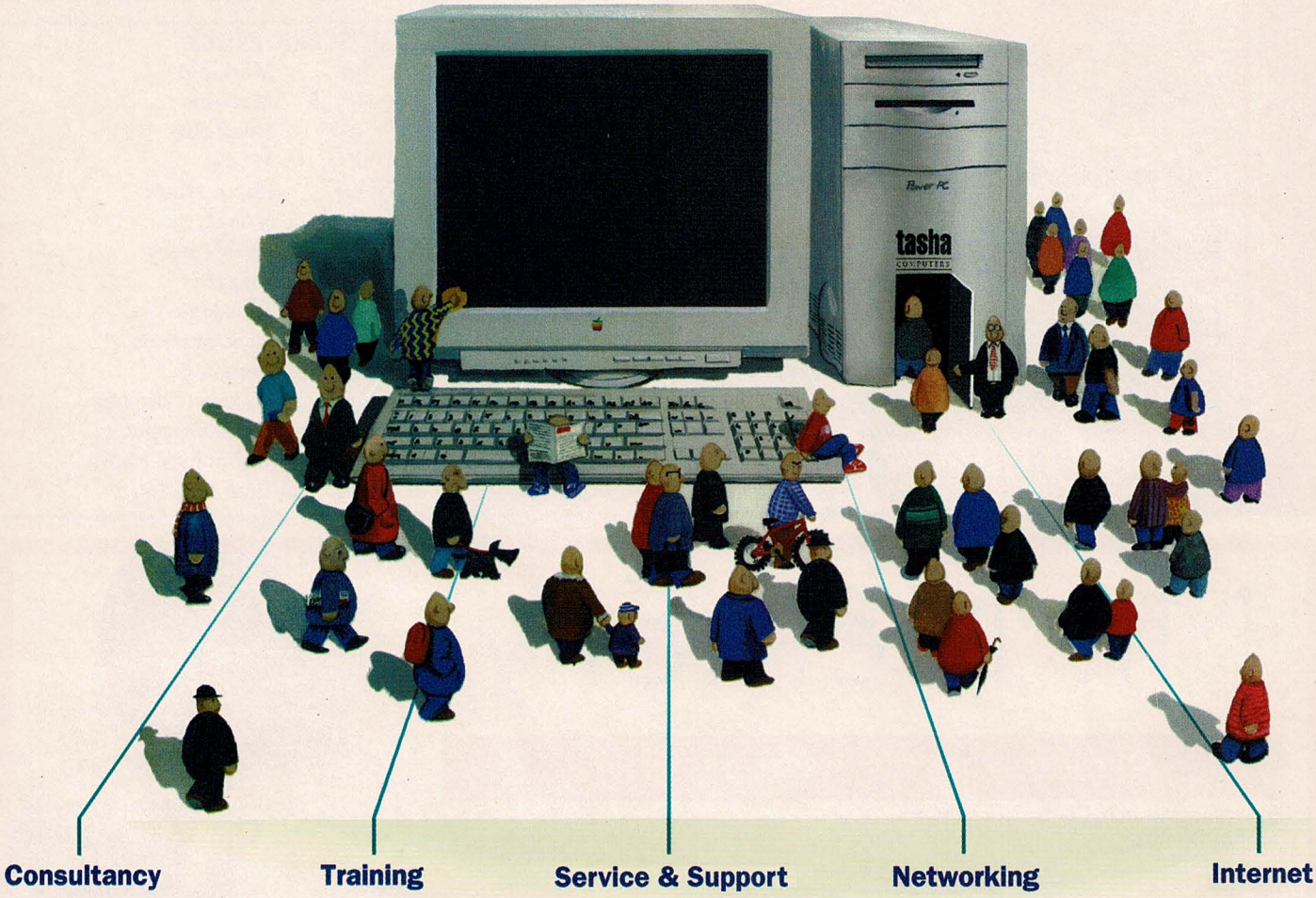

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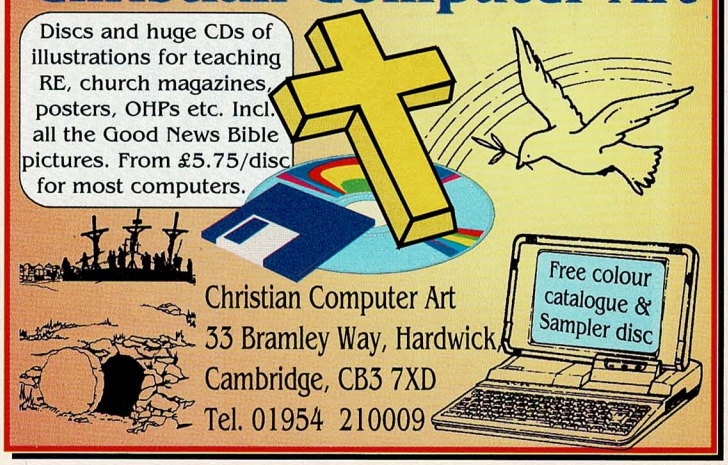

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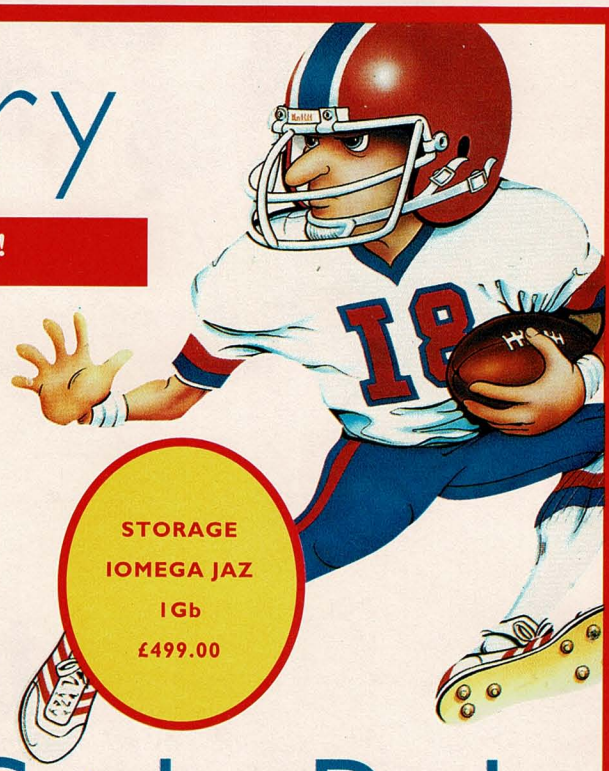

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50,053

How low can you go? Ask the Tiny Zone!

Hello and welcome again to Tiny Zone, the section of MACFORMAT that now barely fits at all. Who *are* all these people above? You may well ask. Fact is, they're a vast corporation, of which Tiny Zone is only a minuscule part of a tiny cog in a small component – so small, it doesn't even show up under its own name in the corporate annual report. And in a funny way, that's just like the Internet, really: each individual user is a mere drop in the information ocean, an atom in a very big void. At least, that's the way it seems from the perspective of the network. So it beats me why Larry Ellison of Oracle (and others) think users will welcome the idea of Internet computers. When the whole direction of personal computing for 30 years has been towards putting *more* power on your desktop, why would you now *want* to become a mere dumb terminal for some vast, remote master?

NEXT ISSUE

Tricks with text

The Mac was the first desktop computer on which you could change font, style, text size and colour – and ever since, it's been the leader in text manipulation. Next issue we look at everything you can do with text, from effects like bending, wrapping and twisting, up to creating your own custom-made fonts.

Sound and vision

We test 15-inch and 17-inch monitors, plus speakers to boost your Mac's sound output.

Music multimedia

An encyclopaedia of rock and pop. Interactive introductions to famous and not-so-famous bands. A guide to classical music. An air-guitar simulator. All this and much more, from *The Art of Singing* to *Junglism!*

PLUS *UniQorn* – the first DTP program to make full use of QuickDraw GX ■ How to use stylesheets in *ClarisWorks* ■ Enabler – how the Mac helps the visually impaired ■ How to handle strange graphic formats ■ *Secrets of Luxor*

ARE YOU A WINNER?

In MACFORMAT 34, the brilliant prize on offer was one of three ONE 1.3Gb magneto optical drives (that's three of them, each with a capacity of 1.3Gb, made by ONE Technologies – got that?), courtesy of Disc Direct. The lucky winners are James Ball of Petersfield, Hants, Alan Hunter of Edinburgh, and Miss M Homer of Cradley Heath in the West Midlands.

In MACFORMAT 35, we gave you the chance to win a copy of the great new LucasArts game *Day of the Tentacle*, courtesy of Virgin. The ten winners are: Peter Riley of Ilkeston, Derbyshire; Val Sisson of Alfreton, also in Derbyshire; André Knott of Luton; Stephen Higgins of Staines; Edward Measey of Slough; Patrick Wilson (age 9) of Leamington Spa; Mona Tang of London W8; Jorma Maronen of Enköping, Sweden; the Bloomer family of Kilmaurs, Ayrshire; and Tom Oldfield of York. Well done, all!

MACFORMAT 40 goes on sale on Thursday 4 July

Available with high density floppy disk or CD-ROM. Ask your newsagent to save you a copy or see page 67 for our special subscription offers

Win a year's free Net access and top modem

We have five prizes of a year's free Internet connection with Demon Internet plus three Motorola 3400 fax-modems to be won!

You don't need to be told again how much the Internet has to offer, from e-mail and FTP to newsgroups and the World Wide Web. Now here's your chance to have it all free for a year through Europe's leading Internet service provider, and using a MACFORMAT Classic rated fax-modem!

Three lucky MACFORMAT readers will win a year's free Demon Internet account (worth over £155) plus a Motorola 3400 fax-modem (worth £175), courtesy of Demon Internet and Motorola respectively. Two runners-up will win a year's free Demon Internet account.

The free accounts mean no sign-up fee and no monthly charge – all you pay is your phone bill, and Demon offers local call access from anywhere in the UK. To make getting connected as easy as possible, Demon is throwing in for each winner an installation disk packed with useful freeware, plus a copy of *The Internet Starter Kit* (third edition), a book with over 400 pages of practical guidance and its own disk of Internet software.

Demon Internet is Europe's biggest Internet access provider. A Demon Internet account gives you direct connection to the Net, so you can browse the World Wide Web, access newsgroups (currently over 14,000 of them!), transfer software, or send and receive as much e-mail as you like with no further charges.

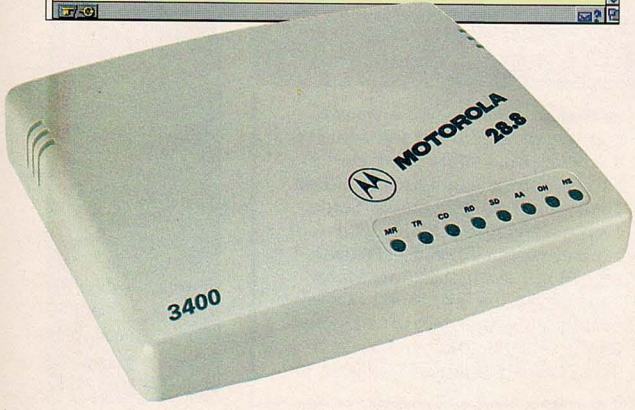
What's more, unlike most other Internet service providers, Demon gives all its subscribers a 'static IP' address. Static IP means your computer always has the same unique identity when you connect to the Net, so if your Internet connection goes down in the middle of transferring a file, for example, you can reconnect and continue where you left off because the remote server will recognise that it's you again.

The three first prize winners also get a Motorola 3400 fax-modem, worth £175, courtesy of Motorola. The 3400 is an easy-to-use 28.8K modem with comprehensive LED displays on the top of the case, where you can see them. It supports the V.42 error-correction protocol for more reliable data transfers, and Motorola prides itself on its modems' complete compatibility with the industry standard Hayes command set. The 3400 comes complete with easy-to-use *Microphone LT* comms software and *STart Faxing* fax software, and all manuals.

To win one of these fabulous prizes, all you have to do is answer the three simple questions below and send us your entry on a postcard or the back of a sealed envelope. The closing date is Friday 12 July 1996. (Don't forget to include your name and address!)

Visit Demon Internet's own Web page – and any other you fancy – with this great package: a year's free Demon account and a brand new Motorola 3400 28.8K fax-modem!

Netscape: Demon Internet
Demon Internet
WWW
Welcome to Demon Internet
Demon Internet is the UK's largest Internet service provider, with over 60,000 customers. Follow the links to find out more about Demon Internet, how to get a dial-up or leased line account and what the benefits of these are, how to get Web space on the Demon Web server and look at what's available in the way of books and reference guides.



The rules

Employees of Demon Internet Limited, Motorola, Future Publishing and associated companies, and their families, are not eligible to enter. Multiple entries are not allowed unless accompanied by a telephone (one of those old Bakelite collectors' items would be nice). The editor's decision is final, no correspondence will be entered into, and there is no cash alternative. Please state if you don't want your name added to a mailing list. **MF**

THE QUESTIONS

1. What proportion of the UK can access Demon Internet at local rates?
(a) 50%, but they're working on it
(b) 80% on a good day
(c) 100%

2. The Motorola 3400 fax-modem is a 28.8K modem. How fast does this mean it is?
(a) 28,800 bits per second
(b) 3,400 bits per second
(c) 3,400 miles per hour

3. Which of the following services does Demon Internet *not* offer?
(a) Direct Internet connection, giving you access to the Web, newsgroups and e-mail
(b) Your very own static IP address
(c) Free wake-up calls to rouse you when you fall asleep at the keyboard late at night

Send your answers (with your name and address!) to: 'Into the Net' Competition, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

"I SAY, DARLING, JUST LOOK AT THE SAVINGS WE'VE MADE ON OUR TELEPHONE BILL."
"THE TELEPORT PLATINUM MODEM CAN SAVE YOU TIME AND MONEY."
Accelerated for Power Macintosh
*BABT

When you're surfing the web, using a TelePort Platinum is like doing it in a speedboat. Because it takes full advantage of the PowerPC chip, you really can achieve blistering speeds up to 115Kbps. And for fax communications there are no rivals to the award-winning GlobalFax Software. That's why MacUser magazine gave the TelePort Platinum a full five-mice review - the highest accolade it can award to any product. The reasons are obvious - with the TelePort Platinum you get quality hardware with simply the best fax software available on any platform. And the feature list just goes on and on: free OCR Software, Fax/ARA and Fax/Voice call discrimintation, QuickDraw GX support, Credit Card Calling, WYSIWYG QuickFax - and, literally, much much more. Choose a TelePort Platinum for your Macintosh and you'll soon realise that Global Village simply outdistances the competition.

http://www.globalvillage.com/

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Carpe Diem
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Dabs Direct
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Winner of Connectivity Hardware Award

Macworld Awards 1996

GLOBAL VILLAGE COMMUNICATION

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MACFORMAT

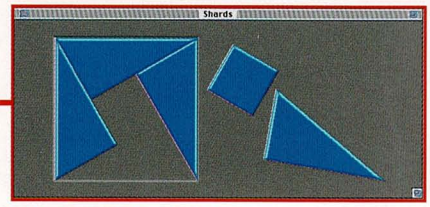
ON THE DISK THIS ISSUE...

Two of the most absorbing, challenging and brain-taxing games to hit the Mac in years, plus a straightforward but powerful address book, a colourful geography quiz, and a selection of really useful utilities, ranging from a handy configurable calendar to a variety of System Extensions that are sure to help speed up the way you work.

SKITTLES 1.0.1

Tetris with Tribbles! Cute squidgy creatures fall from the top of the screen, and you must move fast to make sure that any with matching colours pair off. Best of all, it's for two players, and the better you do, the harder you make life for your opponent!

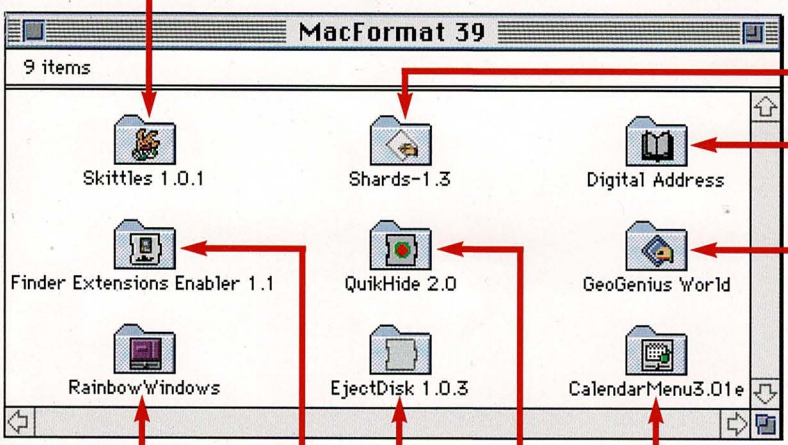
Requires: colour Mac, 2.5Mb free RAM

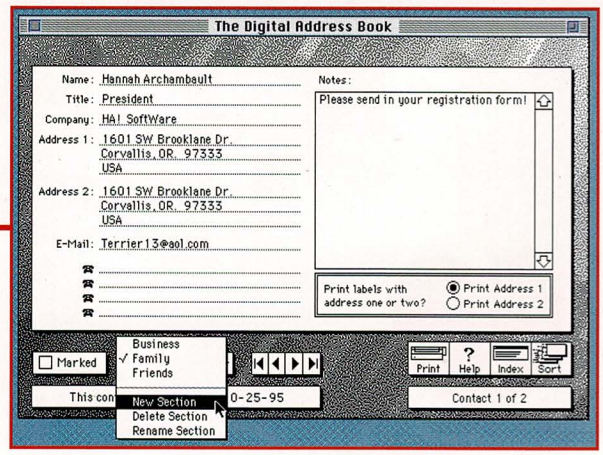


SHARDS 1.3

Think you're good at jigsaw puzzles? Try this challenging puzzler where you have to fit the pieces together to make up the correct shape. The catch is, they could go any way round – you'll flip 'em and flop 'em until your brain is doing flip-flops.

Requires: colour Mac, 1Mb free RAM





THE DIGITAL ADDRESS BOOK

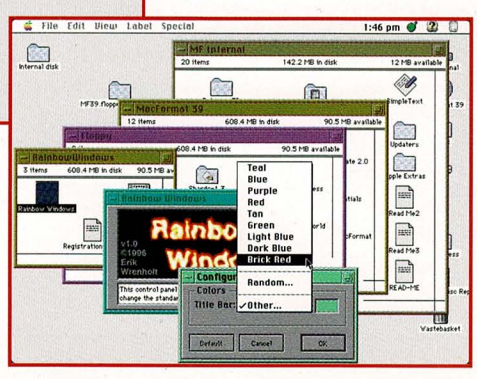
Want to keep track of friends, family, business contacts or casual acquaintances you only ever think about when it's time to send out the Christmas cards? With this straightforward *HyperCard*-based contact manager, you can store a name and address for each, several telephone numbers, e-mail addresses and freeform text notes. It can sort, index and even print your address labels every December...

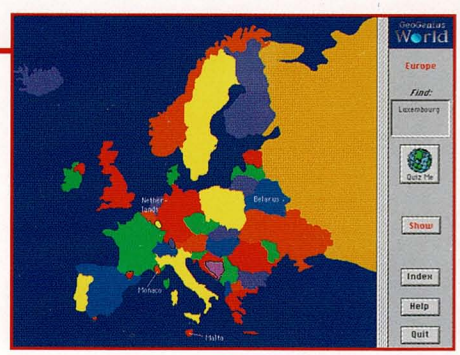
Requires: HyperCard 2.1 or later.

UTILITIES

Make your Mac more colourful, more helpful, and even more powerful with these handy little utilities.

- Finder Extensions Enabler makes creating an Alias a single-step operation and gives you a simple shortcut for finding its Original, as well as one for moving things to the Wastebasket. It requires System 7.1 (7.5.3 for all features).
- The Applications menu at the top right of the Menu Bar enables you to hide the application you're currently in, Hide Others or Show All – the only option missing is Hide All. QuikHide adds that option, giving you quick way to return to a clean Desktop.
- EjectDisk adds a keyboard command for ejecting a mounted floppy without leaving a ghost image.
- CalendarMenu is the ideal companion to *The Digital Address Book* – it adds a pop-up calendar to your Menu Bar, which you can tear off if you want to keep it to hand. You can configure the colours and fonts, and add a scrolling text message to any date. It requires System 7.5.
- Rainbow Windows is a simple Control Panel that gives you the exciting option of adding coloured borders to any window, whether on the Desktop or in any application. It works on any colour Mac.





GEOGENIUS WORLD

A colourful geography quiz that will really test your knowledge of the world.

Requires: colour Mac, 3Mb free RAM